

# Colorado Department of Public Health and Environment

# **OPERATING PERMIT**

Tri-State Generation and Transmission Association, Inc. Limon Generating Station

> First Issued April 1, 2004 Renewed: June 1, 2010

# AIR POLLUTION CONTROL DIVISION COLORADO OPERATING PERMIT

FACILITY NAME: Limon Generating Station OPERATING PERMIT NUMBER

FACILITY ID: 0730036

RENEWED: June 1, 2010 EXPIRATION DATE: June 1, 2015

MODIFICATIONS: See Appendix F of Permit

Issued in accordance with the provisions of Colorado Air Pollution Prevention and Control Act, 25-7-101 et seq. and applicable rules and regulations.

ISSUED TO: PLANT SITE LOCATION:

Tri-State Generation and Transmission
Association, Inc.
Limon Generating Station
48303 State Highway 71
1100 W. 116<sup>th</sup> Ave
Limon, Colorado 80828

Westminster, CO 80234 Lincoln County

INFORMATION RELIED UPON

Operating Permit Renewal Application Received: March 11, 2008

And Additional Information Received: August 25, 2009, October 19, 2009, December 4, 2009,

and December 16 & 18, 2009, and January 20, 2010

**020PLI253** 

Nature of Business: Electrical Power Generation

Primary SIC: 4911

RESPONSIBLE OFFICIAL FACILITY CONTACT PERSON

Name: Barbara A. Walz Name: Josh Carlisle

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SUBMITTAL DEADLINES

First Semi-Annual Monitoring Period: June 1 – September 30

Subsequent Semi-Annual Monitoring Periods: October 1 – March 31, April 1 – September 30

Semi-Annual Monitoring Reports: Due November 1, 2010 & May 1, 2011 and subsequent years

First Annual Compliance Period:

Subsequent Annual Compliance Periods:

June 1 - March 31

April 1 - March 31

Annual Compliance Certification: Due May 1, 2011 and subsequent years

Note that the Semi-Annual Monitoring Reports and the Annual Compliance

Report must be received at the Division office by 5:00 p.m. on the due date. Postmarked dates will not be accepted for the purposes of determining the timely receipt of those reports.

FOR ACID RAIN SUBMITTAL DEADLINES SEE SECTION III.4 OF THIS PERMIT

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#### **SECTION I - General Activities and Summary**

#### 1. **Permitted Activities**

The Limon Generating Station consists of two natural gas-fired simple cycle combustion turbines 1.1 used to generate electric power and is defined under Standard Industrial Classification 4911. The combustion turbines are primarily fueled by natural gas and are designed to burn distillate fuel oil as a back-up fuel source. Each turbine is equipped with dry low NO<sub>X</sub> combustion systems to reduce NO<sub>X</sub> emissions. Water injection is used to reduce NO<sub>X</sub> emissions when burning distillate fuel oil.

The facility is located at 48303 State Highway 71 (approximately 7 kilometers south, southwest of Limon on the west side of State Highway 71). The area in which the plant operates is designated as attainment for all criteria pollutants.

There are no Federal Class I designated areas within 100 kilometers and no affected states within 50 miles of this facility.

- 1.2 Until such time as this permit expires or is modified or revoked, the permittee is allowed to discharge air pollutants from this facility in accordance with the requirements, limitations, and conditions of this permit.
- 1.3 This Operating Permit incorporates the applicable requirements contained in the underlying construction permits, and does not affect those applicable requirements, except as modified during review of the application or as modified subsequent to permit issuance using the modification procedures found in Regulation No. 3, Part C. These Part C procedures meet all applicable substantive New Source Review Requirements of Part B. Any revisions made using the provisions of Regulation No. 3, Part C shall become new applicable requirements for purposes of this operating permit and shall survive reissuance. This permit incorporates the applicable requirements (except as noted in Section II) from the following construction permit: 00LI0455.
- 1.4 All conditions in this permit are enforceable by US Environmental Protection Agency, Colorado Air Pollution Control Division (hereinafter Division) and its agents, and citizens unless otherwise specified. State-only enforceable conditions are: Permit Condition Number(s): Section II, Condition 1.12.1 (opacity) and Section V - Conditions 3.d, 3.g (last paragraph), 14 and 18 (as noted)
- 1.5 All information gathered pursuant to the requirements of this permit is subject to the Recordkeeping and Reporting requirements listed under Condition 22 of the General Conditions in Section V of this permit.

#### 2. **Alternative Operating Scenarios**

(10/1/05 Version)

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The following Alternative Operating Scenario (AOS) for temporary and permanent combustion turbine replacement and turbine component replacement has been reviewed in accordance with the requirements of Regulation No. 3., Part A, Section IV.A, Operational Flexibility-Alternative Operating Scenarios, and Regulation No. 3, Part B, Construction Permits, and Regulation No. 3, Part D, Major Stationary Source New Source review and Prevention of Significant Deterioration and has been found to meet all applicable substantive and procedural requirements. This permit incorporates and shall be considered a Construction Permit for any combustion turbine replacement performed in accordance with this AOS, and the permittee shall be allowed to perform such turbine or turbine component replacement without applying for a revision to this permit or obtaining a new Construction Permit.

#### **Routine Turbine Component Replacements**

The following physical or operational changes to the turbines in this permit are not considered a modification for purposes of NSPS GG, NSR/PSD, or Regulation No. 3:

- 1) Replacement of compressor stator and rotating blades, turbine nozzles, turbine buckets, turbine shroud block, fuel nozzles, combustion chamber system, seals, and shaft packings, provided that they are of the same design as the original.
- 2) Changes in the type or grade of fuel used, if the original gas turbine installation, fuel nozzles, etc. were designed for its use.
- 3) An increase in the hours of operation (unless limited by a permit condition)
- 4) Variations in operating loads within the engine design specification.
- 5) Any physical change constituting routine maintenance, repair, or replacement.

Turbines undergoing any of the above changes are subject to all federally applicable and state-only requirements set forth in this permit (including monitoring and record keeping), and shall be subject to any shield afforded by this permit. If replacement of any of the components listed in (1) or (5) above results in a change in serial number for the turbine, a letter explaining the action as well as a revised APEN and appropriate filing fee shall be submitted to the Division within 30 days of the replacement.

Note that the repair or replacement of components must be of genuinely the same design. Except in accordance with the Alternate Operating Scenario set forth below, the Division does not consider that this allows for the entire replacement (or reconstruction) of an existing turbine with an identical new one or one similar in design or function. Rather, the Division considers the repair or replacements to encompass the repair or replacement of components at a turbine with the same (or functionally similar) components.

#### 2.1 **Turbine Replacement**

The following AOS is incorporated into this permit in order to deal with a turbine breakdown or periodic routine maintenance and repair of an existing onsite turbine that requires the use of either a temporary or permanent replacement turbine. "Temporary" is defined as in the same

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service for 90 operating days or less in any 12 month period. "Permanent" is defined as in the same service for more than 90 operating days in any 12 month period. The 90 days is the total number of days that the turbine is in operation. If the turbine operates only part of a day, that day counts towards the 90 day total. The compliance demonstrations and any monitoring required by this AOS are in addition to those required by the permit.

Any permanent turbine replacement under this AOS shall result in the replacement turbine being considered a new affected facility for purposes of NSPS and shall be subject to all applicable requirements of that Subpart including, but not limited to, any required Performance Testing.

2.1.1 The permittee may temporarily or permanently replace an existing permitted turbine provided such replacement turbines are GE Model EA-PG7121 combustion turbines without modifying this permit, so long as the emissions from the replacement turbine comply with the emission limitations for the existing permitted turbine as determined below.

> In the absence of credible evidence to the contrary, data from the CEM shall be evidence of enforceable compliance or noncompliance of the replacement turbine with any short-term NOx and CO emissions limitations of the original turbine.

For comparison with an annual NOx and CO emissions limit, data from the CEM shall be used to calculate the actual NOx and CO emissions as set forth in this permit.

If the data from the CEM indicate compliance with both the NOX and CO emission limitations, in the absence of credible evidence to the contrary, the source may certify that the turbine is in compliance with both the NOX and CO emission limitations for the relevant time period.

If the CEM data fails to demonstrate compliance with any of the NOx or CO emission limitations, and in the absence of credible evidence to the contrary, the turbine will be considered to be out of compliance for the relevant time periods(s). All data that indicates noncompliance shall be submitted to the Division within 14 calendar days after the data is collected.

- 2.1.2 Replacement turbines are subject to all federally applicable and state-only requirements set forth in this permit (including monitoring and record keeping), and shall be subject to any shield afforded by this permit.
- 2.1.3 The permittee shall maintain a log on-site to contemporaneously record the start and stop date of any turbine replacement, the manufacturer and serial number of the turbine(s) that are replaced during the term of this permit, and the manufacturer and serial number of the replacement turbine.
- 2.1.4 An Air Pollutant Emissions Notice (APEN) that includes the specific manufacturer, model, and serial number of any **permanen**t replacement turbine shall be filed with the Division for the permanent replacement turbine within 14 calendar days of

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2.1.5 The permittee shall agree to pay fees based on the normal permit processing rate for review of information submitted to the Division in regard to any permanent turbine replacement.

#### 2.2 Additional Sources

The replacement of an existing turbine with a new turbine is viewed by the Division as the installation of a new emissions unit, not "routine replacement" of an existing unit. The AOS is therefore essentially an advanced construction permit review. The AOS cannot be used for additional new emission points for any site; a turbine that is being installed as an entirely new emission point and not as part of an AOS-approved replacement of an existing onsite turbine has to go through the appropriate Construction/Operating permitting process prior to installation.

### 3. Prevention Of Significant Deterioration (PSD)

- 3.1 This facility is located in an area designated attainment for all pollutants. It is categorized as a major stationary source (Potential to Emit ≥ 250 Tons/Year for NOx and CO). Future modifications at this facility resulting in a significant net emissions increase (see Reg 3, Part D, Sections II.A.26 and 42) for any pollutant as listed in Regulation No. 3, Part D, Section II.A.42 or a modification which is major by itself (i.e. a Potential to Emit of ≥ 250 TPY of any pollutant listed in Regulation No. 3, Part D, Section II.A.42) may result in the application of the PSD review requirements.
- 3.2 There are no other Operating Permits associated with this facility for purposes of determining applicability of Prevention of Significant Deterioration regulations.

#### 4. Accidental Release Prevention Program (112(r))

4.1 Based on the information provided by the applicant, this facility is not subject to the provisions of the Accidental Release Prevention Program (section 112(r)) of the Federal Clean Air Act.

#### **5.** Compliance Assurance Monitoring (CAM)

5.1 The following emission points at this facility use a control device to achieve compliance with an emission limitation or standard to which they are subject and have pre-control emissions that exceed or are equivalent to the major source threshold. They are therefore subject to the provisions of the CAM program as set forth in 40 CFR Part 64, as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV:

Units L001 and L002 – Two Combustion Turbines, When Burning Distillate Fuel Oil Only See Section II, Condition 1.13 for compliance assurance monitoring requirements.

#### **Summary of Emission Units** 6.

The emissions units regulated by this permit are the following: 6.1

Emission Unit Number	AIRS Stack Number	Facility Identifier	Description	Pollution Control Device
L001	001	L001	One (1) General Electric Combustion Turbine, Model No. 7EA (PG7121), Serial No. 297656. Natural Gas is the Primary Fuel, with Distillate Fuel Oil Used as Backup. The Turbine is Rated at 840.3 mmBtu/hr (Natural Gas) and 905.8 mmBtu/hr (Distillate Fuel). This Turbine drives a Generator Rated at 82 MW.	Dry Low NO <sub>X</sub> (DLN) Combustion Systems and Water-Injection (Distillate Fuel Only)
L002	002	L002	One (1) General Electric Combustion Turbine, Model No. 7EA (PG7121), Serial No. 297657. Natural Gas is the Primary Fuel, with Distillate Fuel Oil Used as Backup. The Turbine is Rated at 840.3 mmBtu/hr (Natural Gas) and 905.8 mmBtu/hr (Distillate Fuel). This Turbine drives a Generator Rated at 82 MW.	Dry Low NO <sub>X</sub> (DLN) Combustion Systems and Water-Injection (Distillate Fuel Only)

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### **SECTION II - Specific Permit Terms**

### 1. Units L001 & L002 – Two (2) Natural Gas Fired Combustion Turbines

## Unless Otherwise Specified Limits are for **Both** Turbines

Parameter	Permit Condition	Limitations		Compliance Emission	Monitoring		
	Number	Short Term	Long Term	Factor	Method	Interval	
BACT Requirements	1.1	Operation Usin Shall Not Ex The Annual Content of the	rbines Combined: g Distillate Fuel Oil ceed 2,000 hrs/yr l Average Sulfur Distillate Fuel Oil ed 0.05 % by Weight	N/A	See Condi	tion 1.1.	
PM	1.2.	N/A	115.6 tons/yr	See Condition 1.2.	Recordkeeping and Calculation	Monthly	
		For Each Turbine: 0.1 lbs/mmBtu, the average of three (3), 1-hr tests		N/A	Fuel Restriction	Whenever Pipeline Quality Natural Gas or Distillate Fuel Oil is Used as Fuel	
$PM_{10}$		N/A	115.6 tons/yr	See Condition 1.2.	Recordkeeping and Calculation	Monthly	
	For Each Turbine, When Burning Distillate Fuel Oil:  0.034 lbs/mmBtu, the average of three (3), 1-hour tests		N/A	See Condi	tion 1.2.		
VOC	1.3.	N/A	13.4 tons/yr	See Condition 1.3.	Recordkeeping and Calculation	Monthly	

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Parameter	Permit Condition	Lin	nitations	Compliance Emission	Monitoring	
	Number	Short Term Long Term		Factor	Method	Interval
SO <sub>2</sub>	1.4.	N/A	49.2 tons/yr	N/A	40 CFR Part 75, Appendix D	As specified in 40 CFR Part 75, Appendix D
		For Each Turbine:  150 ppmvd @ 15% O <sub>2</sub> OR Use of Fuel Which Contains Less than 0.8 Weight % Sulfur  For Each Turbine: 0.35 lbs/mmBtu, on a 3-hour rolling		N/A	Fuel Restriction	See Condition 1.4.
NO <sub>X</sub>	1.5.	For Each Turbine, When Burning Natural Gas:  9 ppmvd @ 15% O <sub>2</sub> on a 1-hr average, except as provided for below  During Startup and Shutdown: 100 ppmvd @ 15% O <sub>2</sub> averaged over the startup and/or shutdown period  During Combustion Tuning, Fuel Switching and Testing (not to exceed 60 hrs/yr for both Turbines combined): 100 ppmvd @ 15% O <sub>2</sub> on a 1-hr average  For Each Turbine, When Burning Distillate Fuel Oil:  42 ppmvd @ 15% O <sub>2</sub> on a 1-hr average, except as provided for below  During Startup and Shutdown: 175 ppmvd @ 15% O <sub>2</sub> averaged over the startup and/or shutdown period  During Combustion Tuning, Fuel Switching and Testing (not to exceed 60 hrs/yr for both Turbines		N/A	Continuous Emission Monitoring System	Continuously
		on a 1-hr averag	370.4 tons/yr			

Parameter	Permit Condition	Limitations		Compliance Emission	Monito	Monitoring	
	Number	Short Term	Long Term	Factor	Method	Interval	
СО	1.6.	For Each Turbine, When Burning Natural Gas:  25 ppmvd @ 15% O <sub>2</sub> on a 1-hr average, except as provided for below  During Startup and Shutdown: 1,000 ppmvd @ 15% O <sub>2</sub> averaged over the startup and/or shutdown period  During Combustion Tuning, Fuel Switching and Testing (not to exceed 60 hrs/yr for both Turbines combined): 1,000 ppmvd @ 15% O <sub>2</sub> on a 1-hr average  For Each Turbine, When Burning Distillate Fuel Oil: 25 ppmvd @ 15% O <sub>2</sub> on a 1-hr average, except as provided for below		N/A	Continuous Emission Monitoring System	Continuously	
		During Startup and Shutdown: 1,000 ppmvd @ 15% O <sub>2</sub> averaged over the startup and/or shutdown period During Combustion Tuning, Fuel Switching and Testing (not to exceed 60 hrs/yr <b>for both Turbines combined</b> ): 1,000 ppmvd @ 15% O <sub>2</sub> on a 1-hr average  N/A  396.4 tons/yr					
Heat Input – For Both Turbines Combined	1.7.	N/A	Natural Gas: 14,722,056 mmBtu/yr Distillate Fuel Oil: 1,811,600 mmBtu/yr	N/A	Recordkeeping	Monthly	

Parameter	Permit Condition	Limitations		Compliance Emission	Monito	ring	
	Number	Short Term	Long Term	Factor	Method	Interval	
Continuous Emission Monitoring System Requirements	1.8.	N/A	N/A	N/A	See Condit	ion 1.8.	
Fuel Flow Meter	1.9.	N/A	N/A	N/A	See Condit	ion 1.9.	
Sulfur Content of Fuel	1.10.	N/A	N/A	N/A	See Conditi	on 1.10.	
NSPS General Provisions	1.11.	N/A	N/A	N/A	As Required by NSPS General Provisions	Subject to NSPS General Provisions	
Opacity	1.12.	State Only Requirement: Not to Exceed 20%		N/A	See Condition 1.12.		
		Not to Exceed 20% Except as Provided for Below					
		Not to Exceed 3 Periods Aggreg (6) Minutes in a	erational Activities - 80%, for a Period or ating More than Six any 60 Consecutive inutes				
Compliance Assurance Monitoring Requirements – When Burning Distillate Fuel Oil Only	1.13.	N/A	N/A	N/A	See Conditi	on 1.13.	
Acid Rain Requirements	1.14.	See Section III of this Permit			Certification	Annually	

- 1.1 The **two combustion turbines** are subject to the requirements of the Prevention of Significant Deterioration (PSD) Program.
  - 1.1.1 Best Available Control Technology (BACT) shall be applied for control of Nitrogen Oxides (NO<sub>X</sub>), Carbon Monoxide, Sulfur Dioxide (SO<sub>2</sub>), and Particulate Matter (PM and PM<sub>10</sub>). BACT **when burning natural gas** has been determined as follows:

- 1.1.1.1 BACT for  $NO_X$  has been determined to be Advanced Dry Low  $NO_X$  (DLN) Combustion Systems with emission limits as identified in Condition 1.5.1.1 (Colorado Construction Permit 00LI0455).
- 1.1.1.2 BACT for CO has been determined to be "good combustion practices" with the emission limits as identified in Condition 1.6.1.1 (Colorado Construction Permit 00LI0455).
- 1.1.1.3 BACT for PM and PM<sub>10</sub> has been determined to be use of pipeline quality natural gas, as specified in Condition 1.10 and application of "good combustion practices" (Colorado Construction Permit 00LI0455).
- 1.1.1.4 BACT for SO<sub>2</sub> has been determined to be use of pipeline quality gas, as specified in Condition 1.10 (Colorado Construction Permit 00LI0455).
- 1.1.2 Best Available Control Technology (BACT) shall be applied for control of Nitrogen Oxides (NO<sub>X</sub>), Carbon Monoxide, Sulfur Dioxide (SO<sub>2</sub>), and Particulate Matter (PM and PM<sub>10</sub>). BACT **when burning distillate fuel oil** has been determined as follows:
  - 1.1.2.1 BACT for NO<sub>X</sub> has been determined to be DLN combustion systems plus water injection with emission limits as identified in Condition 1.5.1.2 (Colorado Construction Permit 00LI0455).
  - 1.1.2.2 BACT for CO has been determined to be "good combustion practices" with the emission limits as identified in Condition 1.6.1.2 (Colorado Construction Permit 00LI0455).
  - 1.1.2.3 BACT for PM and PM<sub>10</sub> has been determined to be limited hours of operation as required by Condition 1.1.3 with the PM<sub>10</sub> emission limits as identified in Condition 1.2.3 (Colorado Construction Permit 00LI0455).
  - 1.1.2.4 BACT for SO<sub>2</sub> has been determined to be limited hours of operation as required by condition 1.1.3 and use of distillate fuel oil with an annual average sulfur content not to exceed 0.05% by weight (Colorado Construction Permit 00LI0455). Demonstration of the distillate fuel oil sulfur content shall be made in accordance with the provisions in Condition 1.10.
- 1.1.3 **Total** Hours of Operation **for both turbines combined** when burning distillate fuel oil shall not exceed 2,000 hrs/yr (Colorado Construction Permit 00LI0455, as modified under the provisions of Section I, Condition 1.3 based on the request submitted by the source on July 31, 2003). Hours of operation on distillate fuel oil for each turbine shall be recorded monthly. Monthly hours of operation for each turbine shall be summed together and used in a rolling twelve month total to monitor compliance with the annual limitation. Each month a new twelve month rolling total shall be calculated using the previous twelve months data.
- 1.2 PM and PM<sub>10</sub> emissions are subject to the following requirements:

1.2.1

**Total** Annual emissions of PM and PM<sub>10</sub> **from both turbines together** shall not exceed the above limitations (Colorado Construction Permit 00LI0455). Monthly emissions from each turbine shall be calculated by the end of the subsequent month using the emission factors in the table below in the following equation:

tons/month = (EF, lbs/mmBtu) x (Heat Input, mmBtu/mo)
2000 lbs/ton

Pollutant	Emission Factor (lbs/mmBtu)							
	Natural Gas Source of Emission Distillate Fuel Factor Oil			Source of Emission Factor				
PM	0.0047	Performance Tests	0.021	Performance Tests				
$PM_{10}$	0.0047	Conducted February	0.021	Conducted June 6				
VOC	0.0002	18 - 20,2002	3.9 x 10 <sup>-4</sup>	and 7, 2003				

Monthly emissions from each turbine shall be summed together and used in a twelve month rolling total to monitor compliance with the annual limitations. Each month a new twelve month total shall be calculated using the previous twelve months data.

- 1.2.2 Particulate Matter (PM) emissions **from each turbine** shall not exceed 0.1 lbs/mmBtu (Colorado Regulation No. 1, Section III.A.1.c). In the absence of credible evidence to the contrary, compliance with the particulate matter emission limits is presumed whenever pipeline quality natural gas or distillate fuel oil that meets the requirements in Condition 1.10 is used as fuel in the turbines.
- 1.2.3 For purposes of BACT, when burning distillate fuel oil, PM<sub>10</sub> emissions from each turbine shall not exceed 0.0340 lbs/mmBtu, based on the average of three (3) 1-hour tests (Colorado Construction Permit 00LI0455, as modified under the provisions of Section I, Condition 1.3 to change the averaging time). Compliance with the PM<sub>10</sub> BACT limit shall be monitored as follows:
  - 1.2.3.1 In the absence of credible evidence to the contrary, compliance with the particulate matter emission limit shall be presumed, provided the turbines are operated and maintained in accordance with manufacturer's recommendations and good engineering practices and that the distillate fuel oil used as fuel meets the requirements in Condition 1.10.
  - 1.2.3.2 A performance test shall be conducted whenever the hours of operation on distillate fuel oil **for both turbines combined** reaches 3,500 hours in any two consecutive years. This performance test shall be conducted within 60 days of reaching 3,500 hours and in accordance with the requirements of 40 CFR Part 60 Subpart A § 60.8 using EPA Test Methods 5 and 202.

A stack testing protocol shall be submitted for Division approval at least thirty (30) calendar days prior to any performance of the test required under this condition. No stack test required herein shall be performed

without prior written approval of the protocol by the Division. The Division reserves the right to witness the test. In order to facilitate the Division's ability to make plans to witness the test, notice of the date (s) for the stack test shall be submitted to the Division at least thirty (30) calendar days prior to the test. The Division may for good cause shown, waive this thirty (30) day notice requirement. In instances when a scheduling conflict is presented, the Division shall immediately contact the permittee in order to explore the possibility of making modifications to the stack test schedule. The required number of copies of the compliance test results shall be submitted to the Division within forty-five (45) calendar days of the completion of the test unless a longer period is approved by the Division.

Total Annual emissions of VOC from both turbines together shall not exceed the above 1.3 limitations (Colorado Construction Permit 00LI0455). Monthly emissions from each turbine shall be calculated by the end of the subsequent month using the emission factors identified in Condition 1.2.1 in the following equation:

> tons/month = (EF, lbs/mmBtu) x (Heat Input, mmBtu/mo) 2000 lbs/ton

Monthly emissions from each turbine shall be summed together and used in a twelve month rolling total to monitor compliance with the annual limitations. Each month a new twelve month total shall be calculated using the previous twelve months data.

- 1.4 Sulfur Dioxide (SO<sub>2</sub>) emissions shall not exceed the following limitations:
  - Total Annual Sulfur Dioxide (SO<sub>2</sub>) emissions from both turbines together shall not 1.4.1 exceed the above limitations (Colorado Construction Permit 00LI0455). Compliance with the annual SO<sub>2</sub> emission limitations shall be monitored using the monitoring method specified in 40 CFR Part 75 Appendix D.

Monthly emissions from each turbine shall be summed together and used in a twelve month rolling total to monitor compliance with the annual limitations. Each month a new twelve month total shall be calculated using the previous twelve months data.

- 1.4.2 Each turbine shall meet one of the following requirements:
  - Sulfur Dioxide (SO<sub>2</sub>) emissions from each turbine shall not exceed 150 1.4.2.1 ppmvd at 15% O<sub>2</sub> OR
  - 1.4.2.2 No fuel, which contains sulfur in excess of 0.8 percent by weight, shall be used in these combustion turbines (40 CFR Part 60 Subpart GG §§ 60.333(a) & (b), as adopted by reference in Colorado Regulation No. 6, Part A).

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In the absence of credible evidence to the contrary, compliance with the above requirements shall be monitored as follows:

- 1.4.2.3 Compliance with the above requirements is presumed, in the absence of evidence to the contrary, when pipeline quality natural gas is used as fuel. The natural gas used as fuel shall meet the requirements in Condition 1.10.
- 1.4.2.4 Compliance with the above requirements is presumed, in the absence of evidence to the contrary, when distillate fuel oil that meets the requirements in Condition 1.10 is used as fuel.
- Sulfur Dioxide (SO<sub>2</sub>) emissions from each turbine shall not exceed 0.35 lbs/mmBtu, 1.4.3 on a 3-hr rolling average (Colorado Regulation No. 1, Section VI.B.4.c.(ii) and VI.B.2). In the absence of credible evidence to the contrary, compliance with the SO<sub>2</sub> limitations is presumed whenever pipeline quality natural gas or distillate fuel oil that meets the requirements in Condition 1.10 is used as fuel in these turbines.
- Emissions of Nitrogen Oxides (NO<sub>X</sub>) shall not exceed the following limitations: 1.5
  - BACT emission limits are as follows: 1.5.1
    - 1.5.1.1 Nitrogen Oxide (NO<sub>X</sub>) emissions from each turbine, when burning natural gas shall not exceed the following limitations (Colorado Construction Permit 00LI0455, as modified under the provisions of Section I, Condition 1.3):
      - Except as provided for below, emissions of NO<sub>X</sub> shall not exceed 9 a. ppmvd at 15% O<sub>2</sub>, on a 1-hour average.
      - b. During startup and shutdown, emissions of NO<sub>X</sub> shall not exceed 100 ppmvd at 15% O<sub>2</sub>, averaged over the startup and/or shutdown period.
      - During periods of combustion tuning, fuel switching and testing, c. emissions of NO<sub>X</sub> shall not exceed 100 ppmvd at 15% O<sub>2</sub>, on a 1hour average. Use of this NO<sub>X</sub> emission limit for purposes of combustion tuning, fuel switching and testing shall not exceed 60 hours in any calendar year for both turbines combined. Records of the number of hours each turbine undergoes combustion tuning, fuel switching and/or testing shall be recorded and maintained and made available to the Division upon request.
      - "Startup" means the setting in operation of any air pollution source d. for any purpose. Setting in operation for these turbines begins when fuel is injected into the turbine. Setting in operation for these turbines ends 20 minutes after the turbine reaches pre-mix steady state mode.

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- e. "Shutdown" means the cessation of operation of any air pollution source for any purpose. The cessation of operation for these turbines begins when the command signal is initiated by the turbine operator to shutdown the unit and ends when fuel is no longer being fired in the turbine.
- f. "Combustion Tuning and Testing" means the operation of the unit for combustion tuning and testing operations after a unit overhaul or as part of routine maintenance operations. Combustion tuning and testing can occur from initial fuel firing to maximum load conditions. "Fuel Switching" means transferring from burning natural gas to burning distillate fuel oil or transferring from burning distillate fuel oil to burning natural gas.
- 1.5.1.2 Nitrogen Oxide (NO<sub>X</sub>) emissions **from each turbine, when burning distillate fuel oil** shall not exceed the following limitations (Colorado Construction Permit 00LI0455, as modified under the provisions of Section I, Condition 1.3):
  - a. Except as provided for below, emissions of NO<sub>X</sub> shall not exceed 42 ppmvd at 15% O<sub>2</sub>, on a 1-hour average.
  - b. During startup and shutdown, emissions of  $NO_X$  shall not exceed 175 ppmvd at 15%  $O_2$ , averaged over the startup and/or shutdown period.
  - c. During periods of combustion tuning, fuel switching and testing, emissions of NO<sub>X</sub> shall not exceed 175 ppmvd at 15% O<sub>2</sub>, on a 1-hour average. Use of this NO<sub>X</sub> emission limit for purposes of combustion tuning, fuel switching and testing shall not exceed 60 hours in any calendar year **for both turbines combined**. Records of the number of hours each turbine undergoes combustion tuning, fuel switching and/or testing shall be recorded and maintained and made available to the Division upon request.
  - d. "Startup" means the setting in operation of any air pollution source for any purpose. Setting in operation for these turbines begins when fuel is injected into the turbine. Setting in operation for these turbines ends 20 minutes after the turbine reaches extended liquid lean-lean mode.
  - e. "Shutdown" shall have the same definition as provided for in Condition 1.5.1.1.e.
  - f. "Combustion Tuning, Fuel Switching and Testing" shall have the same definition as provided for in Condition 1.5.1.1.f.

Compliance with the NO<sub>X</sub> BACT limitations shall be monitored as follows:

- 1.5.1.3 Compliance with the NO<sub>X</sub> BACT emission limitations in Conditions 1.5.1.1.a and 1.5.1.2.a shall be monitored using the continuous emission monitoring systems (CEMS) required by Condition 1.8. Except as provided for in Conditions 1.5.1.4 and 1.5.1.5, all the CEMS concentration (ppm) data points, shall at the end of each clock hour, be summarized to generate the average NO<sub>X</sub> concentration. Each clock hour average NO<sub>X</sub> concentration shall be compared to the limitations in either Condition 1.5.1.1.a or 1.5.1.2.a, as appropriate.
- 1.5.1.4 Compliance with the  $NO_X$  BACT emission limitations in Conditions 1.5.1.1.b and 1.5.1.2.b shall be monitored using the CEMS required by Condition 1.8. All concentration (ppm) data points within the startup and/or shutdown period shall be averaged together to generate the average  $NO_X$  concentration for a given startup and/or shutdown period. The average  $NO_X$  concentration for each startup and shutdown period shall be compared to the limitations in either Conditions 1.5.1.1.b or 1.5.1.2.b, as appropriate.

In the event that the startup ends within a clock hour or the shutdown begins within a clock hour, all non-startup and/or non-shutdown concentration (ppm) data points within that clock hour shall be averaged together to generate the average  $NO_X$  concentration and that average concentration shall be compared to the limitations in either conditions 1.5.1.1.a or 1.5.1.2.a, as appropriate.

1.5.1.5 Compliance with the NO<sub>X</sub> BACT limitations in Conditions 1.5.1.1.c and 1.5.1.2.c shall be monitored using the data generated by the CEMS and manually calculating hourly concentration averages during the combustion tuning, fuel switching and/or testing period. An average NO<sub>X</sub> concentration shall be calculated using all concentration (ppm) data points generated by the CEMS during any <u>actual</u> hour during the combustion tuning, fuel switching and/or testing period and each hourly average shall be compared to the limitations in either Conditions 1.5.1.1.c or 1.5.1.2.c, as appropriate.

For periods of combustion tuning, fuel switching and/or testing that last less than one hour, the average  $NO_X$  concentration shall be calculated using all concentration (ppm) data within the combustion tuning, fuel switching and/or testing period.

In the event that combustion tuning, fuel switching and/or testing begins and/or ends within a clock hour, all non-combustion tuning, fuel switching and/or testing concentration (ppm) data points within that clock hour shall be averaged together to generate the average  $NO_X$  concentration and that average concentration shall be compared to the limitations in either Conditions 1.5.1.1.a or 1.5.1.2.a, as appropriate.

Hours of combustion tuning, fuel switching and/or testing for each

**turbine** when burning natural gas and when burning distillate fuel oil shall be summed together to monitor compliance with the 60 hour limit.

1.5.2 **Total** Annual emissions of NO<sub>X</sub> **from both turbines together** shall not exceed the above limitation (Colorado Construction Permit 00LI0455). Monthly emissions from each turbine shall be determined using the continuous emission monitoring system required by Condition 1.8. Monthly emissions from each turbine shall be summed together and used in a twelve month rolling total to monitor compliance with the annual emission limitation. Each month a new twelve month total shall be calculated using the previous twelve months total.

Note that for purposes of determining compliance with the annual limitations, emissions recorded when the unit has not been operated for the full clock hour shall be addressed as specified in Appendix G, under long term emission limits.

- 1.6 Emissions of Carbon Monoxide (CO) shall not exceed the following limitations:
  - 1.6.1 BACT emission limits are as follows:
    - 1.6.1.1 Carbon Monoxide (CO) emissions **from each turbine, when burning natural gas** shall not exceed the following limitations (Colorado Construction Permit 00LI0455, as modified under the provisions of Section I, Condition 1.3):
      - a. Except as provided for below, emissions of CO shall not exceed 25 ppmvd at 15% O<sub>2</sub>, on a 1-hour average.
      - b. During startup and shutdown, emissions of CO shall not exceed 1,000 ppmvd at 15% O<sub>2</sub>, averaged over the startup and/or shutdown period.
      - c. During periods of combustion tuning, fuel switching and testing, emissions of CO shall not exceed 1,000 ppmvd at 15% O<sub>2</sub>, on a 1-hour average. Use of this CO emission limit for purposes of combustion tuning, fuel switching and testing shall not exceed 60 hours in any calendar year **for both turbines combined**. Records of the number of hours each turbine undergoes combustion tuning, fuel switching and/or testing shall be recorded and maintained and made available to the Division upon request.
      - d. "Startup" shall have the same definition as in Condition 1.5.1.1.d.
      - e. "Shutdown" shall have the same definition as in Condition 1.5.1.1.e.
      - f. "Combustion Tuning, Fuel Switching and Testing" shall have the same definition as in Condition 1.5.1.1.f.
    - 1.6.1.2 Carbon Monoxide (CO) emissions **from each turbine, when burning distillate fuel oil** shall not exceed the following limitations (Colorado

Construction Permit 00LI0455, as modified under the provisions of Section I, Condition 1.3):

- a. Except as provided for below, emissions of CO shall not exceed 25 ppmvd at 15% O<sub>2</sub>, on a 1-hour average.
- b. During startup and shutdown, emissions of CO shall not exceed 1,000 ppmvd at 15% O<sub>2</sub>, averaged over the startup and/or shutdown period.
- c. During periods of combustion tuning, fuel switching and testing, emissions of CO shall not exceed 1,000 ppmvd at 15% O<sub>2</sub>, on a 1-hour average. Use of this CO emission limit for purposes of combustion tuning, fuel switching and testing shall not exceed 60 hours in any calendar year **for both turbines combined**. Records of the number of hours each turbine undergoes combustion tuning, fuel switching and/or testing shall be recorded and maintained and made available to the Division upon request.
- d. "Startup" shall have the same definition as provided for in Condition 1.5.1.2.d.
- e. "Shutdown" shall have the same definition as provided for in Condition 1.5.1.1.e.
- f. "Combustion Tuning, Fuel Switching and Testing" shall have the same definition as provided for in Condition 1.5.1.1.f.

Compliance with the CO BACT limitations shall be monitored as follows:

- 1.6.1.3 Compliance with the CO BACT emission limitations in Condition 1.6.1.1.a and 1.6.1.2.a shall be monitored using the CEMS required by Condition 1.8. Except as provided for in Conditions 1.6.1.4 and 1.6.1.5, all the CEMS concentration (ppm) data points, shall at the end of each clock hour, be summarized to generate the average CO concentration. Each clock hour average CO concentration shall be compared to the limitations in either Condition 1.6.1.1.a or 1.6.1.2.a, as appropriate.
- 1.6.1.4 Compliance with the CO BACT emission limitations in Conditions 1.6.1.1.b and 1.6.1.2.b shall be monitored using the CEMS required by Condition 1.8. All concentration (ppm) data points within the startup and/or shutdown period shall be averaged together to generate the average CO concentration for a given startup and/or shutdown period. The average CO concentration for each startup and shutdown period shall be compared to the limitations in either Conditions 1.6.1.1.b or 1.6.1.2.b, as appropriate.

In the event that the startup ends within a clock hour or the shutdown begins within a clock hour, all non-startup and/or non-shutdown concentration (ppm) data points within that clock hour shall be averaged

together to generate the average CO concentration and that average concentration shall be compared to the limitations in either conditions 1.6.1.1.a or 1.6.1.2.a, as appropriate.

1.6.1.5 Compliance with the CO BACT limitations in Conditions 1.6.1.1.c and 1.6.1.2.c shall be monitored using the data generated by the CEMS and manually calculating hourly concentration averages during the combustion tuning, fuel switching and/or testing period. An average CO concentration shall be calculated using all concentration (ppm) data points generated by the CEMS during any actual hour during the combustion tuning, fuel switching and/or testing period and each hourly average shall be compared to the limitations in either Conditions 1.6.1.1.c or 1.6.1.2.c, as appropriate.

For periods of combustion tuning, fuel switching and/or testing that last less than one hour, the average CO concentration shall be calculated using all concentration (ppm) data points within that combustion tuning, fuel switching and/or testing period.

In the event that combustion tuning, fuel switching and/or testing begins and/or ends within a clock hour, all non-combustion tuning, fuel switching and/or testing concentration (ppm) data points within that clock hour shall be averaged together to generate the average CO concentration and that average concentration shall be compared to the limitations in either Conditions 1.6.1.1.a or 1.6.1.2.a, as appropriate.

Hours of combustion tuning, fuel switching and/or testing **for each turbine** when burning natural gas and when burning distillate fuel oil shall be summed together to monitor compliance with the 60 hour limit.

1.6.2 **Total** Annual emissions of CO **from both turbines together** shall not exceed the above limitations (Colorado Construction Permit 00LI0455D). Monthly emissions from each turbine shall be determined using the continuous emission monitoring system required by Condition 1.8. Monthly emissions from each turbine shall be summed together and used in a twelve month rolling total of emissions to monitor compliance with the annual emission limitation. Each month a new twelve month total shall be calculated using the previous twelve months total.

Note that for purposes of determining compliance with the annual limitations, emissions recorded when the unit has not been operated for the full clock hour shall be addressed as specified in Appendix G, under long term emission limits.

- For CO CEMS data conversions, a 19.0 percent  $O_2$  diluent cap will be used when the measured  $O_2$  concentration is greater than 19.0 percent  $O_2$
- 1.7 **Total** heat input **to both turbines together** shall not exceed the above limitations (Colorado Construction Permit 00LI0455, as modified under the provisions of Section I, Condition 1.3). The heat input to each turbine shall be monitored and recorded monthly using the data acquisition and handling systems (DAHS) for the continuous emission monitoring systems

(CEMS) required by Condition 1.8. Monthly heat input **from natural gas** for each turbine shall be summed together and used in a rolling twelve month total to monitor compliance with the annual limitation. Monthly heat input **from distillate fuel oil** for each turbine shall be summed together and used in a rolling twelve month total to monitor compliance with the annual limitation. Each month new twelve month rolling totals **for each fuel** shall be calculated using the previous twelve months data for that fuel.

- 1.8 **Each** of the turbine exhaust stacks shall be equipped with a continuous emission monitoring system to measure and record the following:
  - 1.8.1 Concentration of Oxides of Nitrogen; ppmvd hourly average;
  - 1.8.2 Emissions of Oxides of Nitrogen; pounds per hour, tons per month, tons per rolling twelve month period;
  - 1.8.3 Concentration of Carbon Monoxide; ppmvd hourly average;
  - 1.8.4 Emissions of Carbon Monoxide, pounds per hour, tons per month, tons per rolling twelve month period;
  - 1.8.5 Concentration of Oxygen, percent hourly average;
  - 1.8.6 Operating mode startup, shutdown, and/or standard operation; and
  - 1.8.7 Load, in MW, at which turbine is operating.

The continuous emission monitoring systems shall meet the requirements in Condition 2 of this permit.

- 1.9 **Each** turbine shall be equipped with an in-line fuel flow meter that meets the requirements in 40 CFR Part 75 Appendix D to measure fuel combusted in each turbine. Fuel flow data shall be recorded on a data acquisition and handling system as specified in 40 CFR Part 75 Appendix D (Colorado Construction Permit 00LI0455, as modified under the provisions of Section I, Condition 1.3).
- 1.10 The sulfur content of the fuels burned shall meet the following requirements:
  - 1.10.1 The permittee shall maintain records demonstrating that the natural gas burned meets the definition of pipeline quality natural gas as defined in 40 CFR Part 72. Specifically, the permittee shall demonstrate that the natural gas burned has a total sulfur content less than 0.5 grains/100 SCF. The demonstration shall be made using any of the methods identified in 40 CFR Part 75 Appendix D, Section 2.3.1.4. These records shall be made available to the Division upon request.
  - 1.10.2 The annual average sulfur content of the distillate fuel oil burned shall not exceed 0.05 % by weight (Colorado Construction Permit 00LI0455). Compliance with the

sulfur content of the fuel, shall be monitored by using one of the fuel oil total sulfur sampling options and the associated sampling frequency described in sections 2.2.3, 2.2.4.1, 2.2.4.2, and 2.2.4.3 of Appendix D of 40 CFR Part 75. All sampling data for the annual period shall be used to calculate the annual average sulfur content of the distillate fuel.

- 1.11 Regulation No. 6, Part A, Subpart A, General Provisions applies as follows:
  - 1.11.1 No article, machine, equipment or process shall be used to conceal an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gasses discharged to the atmosphere. (Colorado Construction Permit 00LI0455 and 40 CFR Part 60 Subpart A § 60.12, as adopted by reference in Colorado Regulation No. 6, Part A)
  - 1.11.2 At all times, including periods of startup, shutdown, and malfunction, owners and operators shall to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source (Colorado Construction Permit 00LI0455 and 40 CFR Subpart A § 60.11(d), as adopted by Regulation No. 6, Part A).
- 1.12 The turbines are subject to the following opacity requirements:
  - 1.12.1 **State-Only Requirement:** No owner or operator may discharge, or cause the discharge into the atmosphere of any particulate matter which is greater than 20% opacity (Colorado Regulation No. 6, Part B, Section II.C.3). This opacity standard applies to **each turbine.**

This opacity standard applies at all times except during periods of startup, shutdown and malfunction (40 CFR Part 60 Subpart A § 60.11(c), as adopted by reference in Colorado Regulation No. 6, Part B, Section I.A).

"Startup" means any setting in operation of an air pollutant source for any purpose. "Shutdown" means the cessation of operation of an air pollutant source for any purpose.

Note that this opacity requirement is more stringent than the opacity requirement in Condition 1.12.3 during periods of building of a new fire, cleaning of fire boxes, soot blowing, process modifications and adjustment or occasional cleaning of control equipment.

- 1.12.2 Except as provided for in Condition 1.12.3 below, no owner or operator of a source shall allow or cause the emission into the atmosphere of any air pollutant which is in excess of 20% opacity (Colorado Construction Permit 00LI0455 and Colorado Regulation No. 1, Section II.A.1). This opacity standard applies to **each turbine**.
- 1.12.3 No owner or operator of a source shall allow or cause to be emitted into the atmosphere any air pollutant resulting from the building of a new fire, cleaning of fire boxes, soot blowing, start-up, process modifications, or adjustment or occasional cleaning of control equipment which is in excess of 30% opacity for a period or periods aggregating more than six (6) minutes in any sixty (60) consecutive minutes (Colorado Construction Permit 00LI0455 and Colorado Regulation No. 1, Section II.A.4).

"Startup" means any setting in operation of an air pollutant source for any purpose.

Compliance with the opacity requirements shall be monitored as follows:

- 1.12.4 **When Burning Natural Gas as Fuel:** In the absence of credible evidence to the contrary, each turbine shall be presumed to be in compliance with the above opacity requirements whenever natural gas is used as fuel.
- 1.12.5 **When Burning Distillate Fuel Oil** compliance with the opacity requirements shall be monitored as follows:
  - 1.12.5.1 Compliance with the opacity standard in Condition 1.12.3 shall be monitored by conducting visible emission observations in accordance with EPA Method 9, annually. This opacity observation shall be taken within one (1) hour of the commencement of any of the specific activities identified in Condition 1.12.3 and every 24 hours thereafter until that activity is completed.

A visible emissions observation is not required for any annual period where no distillate fuel oil is burned, where distillate fuel is not burned for a period of at least six minutes, or when fuel oil is not burned during daylight hours. In addition, a visible emission observation is not required for any annual period where no specific activities identified in Condition 1.12.3 have occurred when distillate fuel oil is burned.

1.12.5.2 Compliance with the opacity standard in Condition 1.12.2 shall be monitored by conducting visible emission observations in accordance with EPA Method 9, after 500 hours of distillate fuel use or annually, whichever comes first. Such opacity observations shall be conducted within 24 hours of completion of any specific activity identified in Condition 1.12.3, if such an activity occurs during the annual period.

A visible emissions observation is not required for any annual period where no distillate fuel oil is burned, where distillate fuel is not burned for

- a period of at least six minutes, or when fuel oil is not burned during daylight hours.
- 1.12.5.3 Compliance with the opacity standard in Condition 1.12.1 is presumed, in the absence of credible evidence to the contrary, provided the visible emission observations conducted under the provisions of Condition 1.12.5.1 meets the limitations in Condition 1.12.1 and the visible emission observation conducted under the provisions of 1.12.5.2 indicates compliance.
- 1.12.5.4 Subject to the provisions of C.R.S. 25-7-123.1 and in the absence of credible evidence to the contrary, exceedance of the opacity limit shall be considered to exist from the time a Method 9 reading is taken that shows an exceedance of the opacity limit until a Method 9 reading is taken that shows the opacity is less than the opacity limit.
- 1.12.5.5 Results of Method 9 readings and a copy of the certified Method 9 reader's certification shall be made available to the Division upon request.
- 1.13 The Compliance Assurance Monitoring (CAM) requirements in 40 CFR Part 64, as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV, apply to the turbines **when burning distillate fuel oil**, with respect to the NO<sub>X</sub> limitations identified in Conditions 1.5.1.2 and 1.5.2 as follows:
  - 1.13.1 The permittee shall monitor the exhaust gas NO<sub>X</sub> concentration (ppmvd at 15% O<sub>2</sub>) using the continuous emission monitoring system required by Condition 1.8. The NO<sub>X</sub> concentrations will be reduced to averages, as discussed in Conditions 1.5.1.3 through 1.5.1.5. Concentration (ppm) clock hourly averages will be converted to lbs/hr averages as indicated in Appendix G (long term limits) and used to calculate a twelve month rolling total. Exceedances, for purposes of CAM, shall be any average NO<sub>X</sub> concentration that the exceeds the limitations identified in Condition 1.5.1.2 and any twelve month period in which the NO<sub>X</sub> emissions exceed the limit identified in Condition 1.5.2. Exceedances of these limitations shall be reported as required by Section II, Condition 2.4 and Section V, Conditions 21 and 22.d of this permit.
  - 1.13.2 Operation of Approved Monitoring
    - 1.13.2.1 At all times, the owner or operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment (40 CFR Part 64 § 64.7(b), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
    - 1.13.2.2 Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring

malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of these CAM requirements, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions (40 CFR Part 64 § 64.7(c), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

#### 1.13.2.3 Response to excursions or exceedances

- Upon detecting an excursion or exceedance, the owner or operator a. shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable (40 CFR Part 64 § 64.7(d)(1), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
- b. Determination of whether the owner of operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process (40 CFR Part 64 § 64.7(d)(2), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
- 1.13.2.4 After approval of the monitoring required under the CAM requirements, if the owner or operator identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need

to modify the existing indicator ranges or designated conditions, the owner or operator shall promptly notify the Division and, if necessary submit a proposed modification for this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters (40 CFR Part 64 § 64.7(e), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

### 1.13.3 Quality Improvement Plan (QIP) Requirements

- 1.13.3.1 Based on the results of a determination made under the provisions of Condition 1.13.2.3.b, the Division may require the owner or operator to develop and implement a QIP (40 CFR Part 64 § 64.8(a), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
- 1.13.3.2 The owner or operator shall maintain a written QIP, if required, and have it available for inspection (40 CFR Part 64 § 64.8(b)(1), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
- 1.13.3.3 The QIP initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the owner or operator shall modify the plan to include procedures for conducting one or more of the following actions, as appropriate:
  - a. Improved preventative maintenance practices (40 CFR Part 64 § 64.8(b)(2)(i), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
  - b. Process operation changes (40 CFR Part 64 § 64.8(b)(2)(ii), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
  - c. Appropriate improvements to control methods (40 CFR Part 64 § 64.8(b)(2)(iii), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
  - d. Other steps appropriate to correct control performance (40 CFR Part 64 § 64.8(b)(2)(iv), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
  - e. More frequent or improved monitoring (only in conjunction with one or more steps under Conditions 1.13.3.3.a through d above) (40 CFR Part 64 § 64.8(b)(2)(v), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
- 1.13.3.4 If a QIP is required, the owner or operator shall develop and implement a QIP as expeditiously as practicable and shall notify the Division if the period for completing the improvements contained in the QIP exceeds 180

- days from the date on which the need to implement the QIP was determined (40 CFR Part 64 § 64.8(c), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
- 1.13.3.5 Following implementation of a QIP, upon any subsequent determination pursuant to Condition 1.13.2.3.b, the Division or the U.S. EPA may require that an owner or operator make reasonable changes to the QIP if the OIP is found to have:
  - a. Failed to address the cause of the control device performance problems (40 CFR Part 64 § 64.8(d)(1), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV); or
  - b. Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions (40 CFR Part 64 § 64.8(d)(2), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
- 1.13.3.6 Implementation of a QIP shall not excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the federal clean air act (40 CFR Part 64 § 64.8(e), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
- 1.13.4 Reporting and Recordkeeping Requirements
  - 1.13.4.1 <u>Reporting Requirements:</u> The reports required by Section V, Condition 22.d, shall contain the information specified in Appendix B of the permit and the following information, as applicable:
    - a. Summary information on the number, duration and cause (including unknown cause, if applicable), for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable) ((40 CFR Part 64 § 64.9(a)(2)(ii), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV); and
    - b. The owner or operator shall submit, if necessary, a description of the actions taken to implement a QIP during the reporting period as specified in Condition 1.13.3 of this permit. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring (40 CFR Part 64 § 64.9(a)(2)(iii), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

- 1.13.4.2 <u>General Recordkeeping Requirements</u>: In addition to the recordkeeping requirements in Section V, Condition 22.a through c.
  - a. The owner or operator shall maintain records of any written QIP required pursuant to Condition 1.13.3 and any activities undertaken to implement a QIP, and any supporting information required to be maintained under these CAM requirements (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions) (40 CFR Part 64 § 64.9(b)(1), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
  - b. Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements (40 CFR Part 64 § 64.9(b)(2), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

#### 1.13.5 Savings Provisions

- 1.13.5.1 Nothing in these CAM requirements shall excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the federal clean air act. These CAM requirements shall not be used to justify the approval of monitoring less stringent than the monitoring which is required under separate legal authority and are not intended to establish minimum requirements for the purposes of determining the monitoring to be imposed under separate authority under the federal clean air act, including monitoring in permits issued pursuant to title I of the federal clean air act. The purpose of the CAM requirements is to require, as part of the issuance of this Title V operating permit, improved or new monitoring at those emissions units where monitoring requirements do not exist or are inadequate to meet the requirements of CAM (40 CFR Part 64 § 64.10(a)(1), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
- 1.13.5.2 Nothing in these CAM requirements shall restrict or abrogate the authority of the U.S. EPA or the Division to impose additional or more stringent monitoring, recordkeeping, testing or reporting requirements on any owner or operator of a source under any provision of the federal clean air act, including but not limited to sections 114(a)(1) and 504(b), or state law, as applicable (40 CFR Part 64 § 64.10(a)(2), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

- 1.13.5.3 Nothing in these CAM requirements shall restrict or abrogate the authority of the U.S. EPA or the Division to take any enforcement action under the federal clean air act for any violation of an applicable requirement or of any person to take action under section 304 of the federal clean air act (40 CFR Part 64 § 64.10(a)(2), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).
- 1.14 These units are subject to the Title IV Acid Rain Requirements. As specified in 40 CFR Part 72.72(b)(1)(viii), the acid rain permit requirements shall be complete and segregable portion of the Operating Permit. As such the requirements are found in Section III of this permit.

### 2. Continuous Emission Monitoring Requirements

Note that the continuous emission monitoring requirements identified in this Condition, are in addition to the continuous emission monitoring requirements required by the Acid Rain Program, which are identified in Section III of this permit.

- 2.1 Equipment and QA/QC Requirements
  - 2.1.1 The Continuous Emission Monitoring Systems (CEMS) are subject to the following requirements:
    - 2.1.1.1 Except as provided for below, the **CO monitors are** subject to the applicable requirements of 40 CFR Part 60 (Colorado Construction Permit 00LI0455). The monitoring systems shall meet the equipment, installation and performance specifications of 40 CFR Part 60 Appendix B, Performance Specification 4/4A. These CEMS are subject to the quality assurance/quality control requirements in 40 CFR Part 60 Appendix F and Subpart A § 60.13.
      - a. The CO CEMS data shall meet the applicable "primary equipment hourly operating requirements" for hourly average calculation methodology specified in 40 CFR Part 75 Subpart B § 75.10(d).
    - 2.1.1.2 The NO<sub>x</sub> (and diluent) monitors are subject to the applicable requirements of 40 CFR Part 75. The monitoring systems shall meet the equipment, installation and performance specification requirements in 40 CFR Part 75, Appendix A. These CEMS shall meet the quality assurance/quality control requirements in 40 CFR Part 75, Appendix B, the conversion procedures of Appendix F and the traceability protocols of Appendix H.
  - 2.1.2 Quality assurance/quality control plans shall be prepared for the continuous emission monitoring systems as follows:
    - 2.1.2.1 The quality assurance/quality control plan for the **CO monitors** shall be prepared in accordance with the applicable requirements in 40 CFR Part 60, Appendix F.

2.1.2.2 The quality assurance /quality control plan for the  $NO_X$  (and diluent) monitors shall be prepared in accordance with the applicable requirements in 40 CFR Part 75, Appendix B.

The quality assurance/quality control plans shall be made available to the Division upon request. Revisions shall be made to the plans at the request of the Division.

#### 2.2 General Provisions

- 2.2.1 **CO monitors:** The permittee shall ensure that all continuous emission monitoring systems required are in operation and monitoring unit emissions at all times except for monitoring system breakdowns, repairs, calibration checks and zero and span adjustments required under 40 CFR Part 60 Subpart A § 60.13(d) (40 CFR Part 60 Subpart A § 60.13(e)).
- NO<sub>X</sub> (and diluent) monitors: The permittee shall ensure that all continuous emission monitoring systems required are in operation and monitoring unit emissions at all times that the affected unit combusts any fuel except as provided in 40 CFR § 75.11(e) and during periods of calibration, quality assurance, or preventative maintenance performed pursuant to 40 CFR Part 75, § 75.21 and Appendix B, periods of repair, periods of backups of data from the data acquisition and handling system or recertification performed pursuant to 40 CFR § 75.20 (40 CFR Part 75 § 75.10(d)).
- 2.2.3 Alternative monitoring systems, alternative reference methods, or any other alternatives for the required continuous emission monitoring systems shall not be used without having obtained prior written approval from the appropriate agency, either the Division or the U. S. EPA, depending on which agency is authorized to approve such alternative under applicable law. Any alternative continuous emission monitoring systems or continuous opacity monitoring systems must be certified in accordance with the applicable requirements of 40 CFR Part 60 or 40 CFR Part 75 prior to use.
- 2.2.4 All test and monitoring equipment, methods, procedures and reporting shall be subject to the review and approval by the appropriate agency, either the Division or the U. S. EPA, depending on which agency is authorized to approve such item under applicable law, prior to any official use. The Division shall have the right to inspect such equipment, methods and procedures and data obtained at any time. The Division may provide a witness(s) for any and all tests as Division resources permit.
- 2.2.5 A file suitable for inspection shall be maintained of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by applicable portions of 40 CFR Part 60 Subpart A and Appendices B and F and 40 CFR Part 75.

2.2.6 Records shall be maintained of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the source; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative (40 CFR Part 60 Subpart A § 60.7(b) and Colorado Construction Permit 00LI0455).

#### 2.3 Data Replacement Requirements

For periods when quality assured data is not available from the continuous emission monitoring systems the data replacement procedures in 40 CFR Part 75 Subpart D shall be used for determining the total (annual) emissions. Although CO emissions are not specifically referenced in the Subpart D procedures, the CEMS data acquisition system is programmed to substitute CO emissions using the same procedures specified for SO<sub>2</sub>.

Note that the replaced data shall be used to monitor compliance with the  $NO_x$  and CO annual emission limitations.

#### 2.4 Recordkeeping and Reporting Requirements

- 2.4.1 The owner or operator of a facility required to install, maintain, and calibrate continuous monitoring equipment shall submit to the Division, by the end of the calendar month following the end of each calendar quarter, a report of excess emissions for all pollutants monitored for quarter (40 CFR Part 60 Subpart A § 60.7(c)). This report shall consist of the following information and/or reporting requirements as specified by the Division:
  - 2.4.1.1 The magnitude of excess emissions computed in accordance with 40 CFR Part 60 Subpart A § 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions and the process operating time during the reporting period (40 CFR Part 60 Subpart A § 60.7(c)(1)).
  - 2.4.1.2 Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted (40 CFR Part 60 Subpart A § 60.7(c)(2)).
  - 2.4.1.3 The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments (40 CFR Part 60 Subpart A § 60.7(c)(3)).
  - 2.4.1.4 When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report (40 CFR Part 60 Subpart A § 60.7(c)(4)).

2.4.2 The owner or operator of a facility required to install, maintain, and calibrate continuous monitoring equipment shall submit to the Division, by the end of the month following the end of each calendar quarter, a summary report for that quarter (40 CFR Part 60 Subpart A § 60.7(c)). One summary report form shall be submitted for each pollutant monitored. This report shall contain the information and be presented in a format approved by the Division.

> If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and continuous monitoring system (CMS) downtime is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in Condition 2.4.1 need not be submitted unless required by the Division (40 CFR Part 60 Subpart A § 60.7(d)(1)).

If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in Condition 2.4.1 shall both be submitted (40 CFR Part 60 Subpart A § 60.7(d)(1)).

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# **SECTION III - Acid Rain Requirements**

#### 1. **Designated Representative and Alternate Designated Representative**

Designated Representative: Alternate Designated Representative:

Name: Barbara A. Walz Michael McInnes Name: Senior Vice President -Title: Vice President -Title:

Environmental Production

Phone: (303) 452-6111 Phone: (303) 452-6111

Changes to the Designated Representative or Alternate Designated Representative shall be made in accordance with 40 CFR Part 72 § 72.23.

#### 2. Sulfur Dioxide Emission Allowances and Nitrogen Oxide Emission Limitations

Combustion Turbine No. L001	2010	2011	2012	2013	2014	2015
SO <sub>2</sub> Allowances, per 40 CFR Part 73.10(b), Table 2	0*	0*	0*	0*	0*	0*
NO <sub>X</sub> Limits	This Unit Has No NO <sub>X</sub> Limits (See Section 5)					

<sup>\*</sup> Under the provisions of § 72.84(a) any allowance allocations to, transfers to and deductions from an affected unit's Allowance Tracking System account is considered an automatic permit amendment and as such no revision to the permit is necessary. Numerical allowances shown in this table are from the May 12, 2005 edition of the rule (70 FR 25335)

Combustion Turbine No. L002	2010	2011	2012	2013	2014	2015
SO <sub>2</sub> Allowances, per 40 CFR Part 73.10(b), Table 2	0*	0*	0*	0*	0*	0*
NO <sub>X</sub> Limits	This Unit Has No NO <sub>X</sub> Limits (See Section 5)					

<sup>\*</sup> Under the provisions of § 72.84(a) any allowance allocations to, transfers to and deductions from an affected unit's Allowance Tracking System account is considered an automatic permit amendment and as such no revision to the permit is necessary. Numerical allowances shown in this table are from the May 12, 2005 edition of the rule (70 FR 25335)

#### **3. Standard Requirements**

Combustion Turbines L001 and L002 of this facility are subject to the Acid Rain Program and the source has certified that they will comply with the following Acid Rain Requirements (standard requirements specified in 40 CFR Part 72 §72.9

# Permit Requirements.

The designated representative of each affected source and each affected unit at the source shall: (1)

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- Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR i) part 72 in accordance with the deadlines specified in 40 CFR 72.30; and
- ii) Submit in a timely manner any supplemental information that the Division determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;
- The owners and operators of each affected source and each affected unit at the source shall: (2)
  - i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the Division; and
  - ii) Have an Acid Rain Permit.

# Monitoring Requirements.

- (1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75.
- The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to (2) determine compliance by the source or unit, as appropriate, with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Federal Clean Air Act and other provisions of the operating permit for the source.

# Sulfur Dioxide Requirements.

- The owners and operators of each source and each affected unit at the source shall: (1)
  - i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
  - ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide (2) shall constitute a separate violation of the Federal Clean Air Act.
- An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide (3) requirements as follows:
  - i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or

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- ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or the written exemption under 40 CFR 72.7, 72.8 or 72.14 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

<u>Nitrogen Oxides Requirements</u>. The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

# Excess Emissions Requirements.

- (1) The designated representative of an affected unit that has excess emissions in any calendar year shall submit a proposed offset plan to the Administrator of the U. S. EPA, as required under 40 CFR part 77.
- (2) The owners and operators of an affected unit that has excess emissions in any calendar year shall:
  - i) Pay without demand, to the Administrator of the U. S. EPA, the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
  - ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

# Recordkeeping and Reporting Requirements.

- (1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or the Division:
  - i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;

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- ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
- iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
- iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
- (2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

# Liability.

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or a written exemption under 40 CFR 72.7, 72.8 or 72.14, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Federal Clean Air Act.
- (2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Federal Clean Air Act and 18 U.S.C. 1001.
- (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
- (4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.
- (5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.
- (6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit.
- (7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Federal Clean Air Act.

<u>Effect on Other Authorities</u>. No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or a written exemption under 40 CFR 72.7, 72.8 or 72.14 shall be construed as:

- (1) Except as expressly provided in title IV of the Federal Clean Air Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Federal Clean Air Act, including the provisions of title I of the Federal Clean Air Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
- (2) Limiting the number of allowances a unit can hold; provided, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Federal Clean Air Act;
- (3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;
- (4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
- (5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

# 4. Reporting Requirements

Reports shall be submitted to the addresses identified in Appendix D.

Pursuant to 40 CFR Part 75.64 quarterly reports and compliance certification requirements shall be submitted to the Administrator within 30 days after the end of the calendar quarter. The contents of these reports shall meet the requirements of 40 CFR 75.64.

Revisions to this permit shall be made in accordance with 40 CFR Part 72, Subpart H, §§ 72.80 through 72.85 (as adopted by reference in Colorado Regulation 18). Permit modification requests shall be submitted to the Division at the address identified in Appendix D.

## 5. Comments, Notes and Justifications

Combustion Turbines L001 and L002 burn natural gas as a primary fuel. Distillate fuel oil is used for startup and backup The  $NO_X$  limitations in 40 CFR Part 76 are only applicable to coal-fired utility units and thus do not apply to L001 and L002.

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#### **SECTION IV - Permit Shield**

Regulation No. 3, 5 CCR 1001-5, Part C, §§ I.A.4, V.D. & XIII.B; § 25-7-114.4(3)(a), C.R.S.

# 1. Specific Non-Applicable Requirements

Based on the information available to the Division and supplied by the applicant, the following parameters and requirements have been specifically identified as non-applicable to the facility to which this permit has been issued. This shield does not protect the source from any violations that occurred prior to or at the time of permit issuance. In addition, this shield does not protect the source from any violations that occur as a result of any modifications or reconstruction on which construction commenced prior to permit issuance.

Emission Unit Description & Number	Non-Applicable Requirement	Justification
Facility	Colorado Regulation No. 7 (except for Section V, Paragraphs VI.B.1 and 2, and Subsection VII.C)	These requirements are not applicable because this facility is not located in an ozone non-attainment area.
Facility	Colorado Regulation No. 7, Section V.B	This requirement is not applicable since the facility is not a bulk gasoline terminal, bulk gasoline plant or gas dispensing facility.
Facility	Colorado Regulation No. 7, Sections VI.B.1 and 2	These requirements are not applicable as the liquids stored in tanks greater than 40,000 gallons are exempt from the provisions of Section VI.B.2 per Section VI.B.1.a.
Facility	Colorado Regulation No. 7, Section VII.C	This requirement is not applicable as crude oil is not stored in tanks exceeding 40,000 gallons.

## 2. General Conditions

Compliance with this Operating Permit shall be deemed compliance with all applicable requirements specifically identified in the permit and other requirements specifically identified in the permit as not applicable to the source. This permit shield shall not alter or affect the following:

- 2.1 The provisions of §§ 25-7-112 and 25-7-113, C.R.S., or § 303 of the federal act, concerning enforcement in cases of emergency;
- 2.2 The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
- 2.3 The applicable requirements of the federal Acid Rain Program, consistent with § 408(a) of the federal act;

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- 2.4 The ability of the Air Pollution Control Division to obtain information from a source pursuant to § 25-7-111(2)(I), C.R.S., or the ability of the Administrator to obtain information pursuant to § 114 of the federal act;
- 2.5 The ability of the Air Pollution Control Division to reopen the Operating Permit for cause pursuant to Regulation No. 3, Part C, § XIII.
- 2.6 Sources are not shielded from terms and conditions that become applicable to the source subsequent to permit issuance.

## 3. Streamlined Conditions

The following applicable requirements have been subsumed within this operating permit using the pertinent streamlining procedures approved by the U.S. EPA. For purposes of the permit shield, compliance with the listed permit conditions will also serve as a compliance demonstration for purposes of the associated subsumed requirements.

Permit Condition	Streamlined (Subsumed) Requirements
Section II, Conditions 1.5.1.1.a and 1.5.1.2.a	40 CFR Part 60 Subpart GG § 60.332(b), as adopted by reference in Colorado Regulation No. 6, Part A, including exemptions in §§ 60.332(f) & (i) [NO <sub>X</sub> emissions shall not exceed the ppmvd limits as calculated using the equation in §60.332(a)(1)].
Section II, Conditions 1.8 (nitrogen content) and 1.10 (sulfur content)	40 CFR Part 60 Subpart GG §§ 60.334(h), 60.335(b)(9) & (b)(10), as adopted by reference in Colorado Regulation No. 6, Part A [monitor sulfur and nitrogen content of fuel and test methods and procedures for fuel sampling]
Section II, Condition 1.8	40 CFR Part 60 Subpart GG § 60.334(a), as adopted by reference in Colorado Regulation No. 6, Part A [continuous monitoring system to measure and record the fuel consumption rate and ratio of water to fuel] Note this requirement only applies to turbines using water-injection, so this monitoring requirement only applies when burning distillate fuel oil
Section II, Condition 2.4	40 CFR Part 60 Subpart GG § 60.334(j)(1), as adopted by reference in Colorado Regulation No. 6, Part A [excess emission reporting for nitrogen content of fuel and water to fuel ratio]
Section II, Condition 1.10	40 CFR Part 60 Subpart GG § 60.334(j)(2), as adopted by reference in Colorado Regulation No. 6, Part A [excess emission reporting for sulfur content of fuel]
Section II, Condition 1.4.3	Regulation No. 6, Part B, Section II.D.3.b [SO <sub>2</sub> emissions not to exceed 0.35 lbs/mmBtu] - <b>State-only Requirement</b>
Section II, Conditions 2.1 and 2.2	Colorado Construction Permit 00LI0455, condition 6 [continuous emission monitoring system $\mathbf{QA/QC}$ requirements only] for the $\mathbf{NO_X}$ and diluent continuous emission monitoring systems only.

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# **SECTION V - General Permit Conditions (ver 7/21/2009)**

## 1. Administrative Changes

Regulation No. 3, 5 CCR 1001-5, Part A, § III.

The permittee shall submit an application for an administrative permit amendment to the Division for those permit changes that are described in Regulation No. 3, Part A, § I.B.1. The permittee may immediately make the change upon submission of the application to the Division.

## 2. Certification Requirements

## Regulation No. 3, 5 CCR 1001-5, Part C, §§ III.B.9., V.C.16.a.& e. and V.C.17.

- a. Any application, report, document and compliance certification submitted to the Air Pollution Control Division pursuant to Regulation No. 3 or the Operating Permit shall contain a certification by a responsible official of the truth, accuracy and completeness of such form, report or certification stating that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
- b. All compliance certifications for terms and conditions in the Operating Permit shall be submitted to the Air Pollution Control Division at least annually unless a more frequent period is specified in the applicable requirement or by the Division in the Operating Permit.
- c. Compliance certifications shall contain:
  - (i) the identification of each permit term and condition that is the basis of the certification;
  - (ii) the compliance status of the source;
  - (iii) whether compliance was continuous or intermittent;
  - (iv) method(s) used for determining the compliance status of the source, currently and over the reporting period; and
  - such other facts as the Air Pollution Control Division may require to determine the compliance status of the source.
- d. All compliance certifications shall be submitted to the Air Pollution Control Division and to the Environmental Protection Agency at the addresses listed in Appendix D of this Permit.
- e. If the permittee is required to develop and register a risk management plan pursuant to § 112(r) of the federal act, the permittee shall certify its compliance with that requirement; the Operating Permit shall not incorporate the contents of the risk management plan as a permit term or condition.

#### 3. Common Provisions

#### Common Provisions Regulation, 5 CCR 1001-2 §§ II.A., II.B., II.C., II.E., II.F., II.I, and II.J

a. To Control Emissions Leaving Colorado

When emissions generated from sources in Colorado cross the State boundary line, such emissions shall not cause the air quality standards of the receiving State to be exceeded, provided reciprocal action is taken by the receiving State.

#### b. **Emission Monitoring Requirements**

The Division may require owners or operators of stationary air pollution sources to install, maintain, and use instrumentation to monitor and record emission data as a basis for periodic reports to the Division.

#### c. Performance Testing

The owner or operator of any air pollution source shall, upon request of the Division, conduct performance test(s) and furnish the Division a written report of the results of such test(s) in order to determine compliance with applicable emission control regulations.

Performance test(s) shall be conducted and the data reduced in accordance with the applicable reference test methods unless the Division:

- (i) specifies or approves, in specific cases, the use of a test method with minor changes in methodology;
- (ii) approves the use of an equivalent method;
- (iii) approves the use of an alternative method the results of which the Division has determined to be adequate for indicating where a specific source is in compliance; or
- (iv) waives the requirement for performance test(s) because the owner or operator of a source has demonstrated by other means to the Division's satisfaction that the affected facility is in compliance with the standard. Nothing in this paragraph shall be construed to abrogate the Commission's or Division's authority to require testing under the Colorado Revised Statutes, Title 25, Article 7, and pursuant to regulations promulgated by the Commission.

Compliance test(s) shall be conducted under such conditions as the Division shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Division such records as may be necessary to determine the conditions of the performance test(s). Operations during period of startup, shutdown, and malfunction shall not constitute representative conditions of performance test(s) unless otherwise specified in the applicable standard.

The owner or operator of an affected facility shall provide the Division thirty days prior notice of the performance test to afford the Division the opportunity to have an observer present. The Division may waive the thirty day notice requirement provided that arrangements satisfactory to the Division are made for earlier testing.

The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

- Sampling ports adequate for test methods applicable to such facility; (i)
- (ii) Safe sampling platform(s);
- (iii) Safe access to sampling platform(s); and
- (iv) Utilities for sampling and testing equipment.

Each performance test shall consist of at least three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic mean of results of at least three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the owner or operator's control, compliance may, upon the Division's approval, be determined using the arithmetic mean of the results of the two other runs.

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Nothing in this section shall abrogate the Division's authority to conduct its own performance test(s) if so warranted.

d. Affirmative Defense Provision for Excess Emissions during Malfunctions

Note that until such time as the U.S. EPA approves this provision into the Colorado State Implementation Plan (SIP), it shall be enforceable only by the State.

An affirmative defense to a claim of violation under these regulations is provided to owners and operators for civil penalty actions for excess emissions during periods of malfunction. To establish the affirmative defense and to be relieved of a civil penalty in any action to enforce an applicable requirement, the owner or operator of the facility must meet the notification requirements below in a timely manner and prove by a preponderance of evidence that:

- (i) The excess emissions were caused by a sudden, unavoidable breakdown of equipment, or a sudden, unavoidable failure of a process to operate in the normal or usual manner, beyond the reasonable control of the owner or operator;
- (ii) The excess emissions did not stem from any activity or event that could have reasonably been foreseen and avoided, or planned for, and could not have been avoided by better operation and maintenance practices;
- (iii) Repairs were made as expeditiously as possible when the applicable emission limitations were being exceeded;
- (iv) The amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions;
- (v) All reasonably possible steps were taken to minimize the impact of the excess emissions on ambient air quality;
- (vi) All emissions monitoring systems were kept in operation (if at all possible);
- (vii) The owner or operator's actions during the period of excess emissions were documented by properly signed, contemporaneous operating logs or other relevant evidence;
- (viii) The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance;
- (ix) At all times, the facility was operated in a manner consistent with good practices for minimizing emissions. This section is intended solely to be a factor in determining whether an affirmative defense is available to an owner or operator, and shall not constitute an additional applicable requirement; and
- (x) During the period of excess emissions, there were no exceedances of the relevant ambient air quality standards established in the Commissions' Regulations that could be attributed to the emitting source.

The owner or operator of the facility experiencing excess emissions during a malfunction shall notify the division verbally as soon as possible, but no later than noon of the Division's next working day, and shall submit written notification following the initial occurrence of the excess emissions by the end of the source's next reporting period. The notification shall address the criteria set forth above.

The Affirmative Defense Provision contained in this section shall not be available to claims for injunctive relief.

The Affirmative Defense Provision does not apply to failures to meet federally promulgated performance standards or emission limits, including, but not limited to, new source performance standards and national emission standards for hazardous air pollutants. The affirmative defense provision does not apply to state implementation plan (sip) limits or permit limits that have been set taking into account potential emissions during malfunctions, including, but not necessarily limited to, certain limits with 30-day or longer averaging times, limits that indicate they apply during malfunctions, and limits that indicate they apply at all times or without exception.

#### e. Circumvention Clause

A person shall not build, erect, install, or use any article, machine, equipment, condition, or any contrivance, the use of which, without resulting in a reduction in the total release of air pollutants to the atmosphere, reduces or conceals an emission which would otherwise constitute a violation of this regulation. No person shall circumvent this regulation by using more openings than is considered normal practice by the industry or activity in question.

#### f. Compliance Certifications

For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in the Colorado State Implementation Plan, nothing in the Colorado State Implementation Plan shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed. Evidence that has the effect of making any relevant standard or permit term more stringent shall not be credible for proving a violation of the standard or permit term.

When compliance or non-compliance is demonstrated by a test or procedure provided by permit or other applicable requirement, the owner or operator shall be presumed to be in compliance or non-compliance unless other relevant credible evidence overcomes that presumption.

g. Affirmative Defense Provision for Excess Emissions During Startup and Shutdown

An affirmative defense is provided to owners and operators for civil penalty actions for excess emissions during periods of startup and shutdown. To establish the affirmative defense and to be relieved of a civil penalty in any action to enforce an applicable requirement, the owner or operator of the facility must meet the notification requirements below in a timely manner and prove by a preponderance of the evidence that:

- (i) The periods of excess emissions that occurred during startup and shutdown were short and infrequent and could not have been prevented through careful planning and design;
- (ii) The excess emissions were not part of a recurring pattern indicative of inadequate design, operation or maintenance;
- (iii) If the excess emissions were caused by a bypass (an intentional diversion of control equipment), then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
- (iv) The frequency and duration of operation in startup and shutdown periods were minimized to the maximum extent practicable;
- (v) All possible steps were taken to minimize the impact of excess emissions on ambient air quality;
- (vi) All emissions monitoring systems were kept in operation (if at all possible);
- (vii) The owner or operator's actions during the period of excess emissions were documented by properly signed, contemporaneous operating logs or other relevant evidence; and,
- (viii) At all times, the facility was operated in a manner consistent with good practices for minimizing emissions. This subparagraph is intended solely to be a factor in determining whether an affirmative defense is available to an owner or operator, and shall not constitute an additional applicable requirement.

The owner or operator of the facility experiencing excess emissions during startup and shutdown shall notify the Division verbally as soon as possible, but no later than two (2) hours after the start of the next working day, and shall submit written quarterly notification following the initial occurrence of the excess emissions. The notification shall address the criteria set forth above.

The Affirmative Defense Provision contained in this section shall not be available to claims for injunctive relief.

The Affirmative Defense Provision does not apply to State Implementation Plan provisions or other requirements that derive from new source performance standards or national emissions standards for hazardous air pollutants, or any other federally enforceable performance standard or emission limit with an averaging time greater than twenty-four hours. In addition, an affirmative defense cannot be used by a single source or small group of sources where the excess emissions have the potential to cause an exceedance of the ambient air quality standards or Prevention of Significant Deterioration (PSD) increments.

In making any determination whether a source established an affirmative defense, the Division shall consider the information within the notification required above and any other information the Division deems necessary, which may include, but is not limited to, physical inspection of the facility and review of documentation pertaining to the maintenance and operation of process and air pollution control equipment.

#### 4. Compliance Requirements

# Regulation No. 3, 5 CCR 1001-5, Part C, §§ III.C.9., V.C.11. & 16.d. and § 25-7-122.1(2), C.R.S.

- a. The permittee must comply with all conditions of the Operating Permit. Any permit noncompliance relating to federally-enforceable terms or conditions constitutes a violation of the federal act, as well as the state act and Regulation No. 3. Any permit noncompliance relating to state-only terms or conditions constitutes a violation of the state act and Regulation No. 3, shall be enforceable pursuant to state law, and shall not be enforceable by citizens under § 304 of the federal act. Any such violation of the federal act, the state act or regulations implementing either statute is grounds for enforcement action, for permit termination, revocation and reissuance or modification or for denial of a permit renewal application.
- b. It shall not be a defense for a permittee in an enforcement action or a consideration in favor of a permittee in a permit termination, revocation or modification action or action denying a permit renewal application that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.
- c. The permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of any request by the permittee for a permit modification, revocation and reissuance, or termination, or any notification of planned changes or anticipated noncompliance does not stay any permit condition, except as provided in §§ X. and XI. of Regulation No. 3, Part C.
- d. The permittee shall furnish to the Air Pollution Control Division, within a reasonable time as specified by the Division, any information that the Division may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Division copies of records required to be kept by the permittee, including information claimed to be confidential. Any information subject to a claim of confidentiality shall be specifically identified and submitted separately from information not subject to the claim.
- e. Any schedule for compliance for applicable requirements with which the source is not in compliance at the time of permit issuance shall be supplemental, and shall not sanction noncompliance with, the applicable requirements on which it is based.
- f. For any compliance schedule for applicable requirements with which the source is not in compliance at the time of permit issuance, the permittee shall submit, at least every 6 months unless a more frequent period is specified in the applicable requirement or by the Air Pollution Control Division, progress reports which contain the following:
  - (i) dates for achieving the activities, milestones, or compliance required in the schedule for compliance, and dates when such activities, milestones, or compliance were achieved; and

- (ii) an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.
- g. The permittee shall not knowingly falsify, tamper with, or render inaccurate any monitoring device or method required to be maintained or followed under the terms and conditions of the Operating Permit.

## 5. Emergency Provisions

## Regulation No. 3, 5 CCR 1001-5, Part C, § VII.E

An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed the technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. "Emergency" does not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error. An emergency constitutes an affirmative defense to an enforcement action brought for noncompliance with a technology-based emission limitation if the permittee demonstrates, through properly signed, contemporaneous operating logs, or other relevant evidence that:

- a. an emergency occurred and that the permittee can identify the cause(s) of the emergency;
- b. the permitted facility was at the time being properly operated;
- c. during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
- d. the permittee submitted oral notice of the emergency to the Air Pollution Control Division no later than noon of the next working day following the emergency, and followed by written notice within one month of the time when emissions limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

This emergency provision is in addition to any emergency or malfunction provision contained in any applicable requirement.

#### 6. Emission Controls for Asbestos

## Regulation No. 8, 5 CCR 1001-10, Part B

The permittee shall not conduct any asbestos abatement activities except in accordance with the provisions of Regulation No. 8, Part B, "asbestos control."

# 7. Emissions Trading, Marketable Permits, Economic Incentives

#### Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.13.

No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are specifically provided for in the permit.

# 8. Fee Payment

#### C.R.S §§ 25-7-114.1(6) and 25-7-114.7

a. The permittee shall pay an annual emissions fee in accordance with the provisions of C.R.S. § 25-7-114.7. A 1% per month late payment fee shall be assessed against any invoice amounts not paid in full on the 91st day after the date of invoice, unless a permittee has filed a timely protest to the invoice amount.

- The permittee shall pay a permit processing fee in accordance with the provisions of C.R.S. § 25-7-114.7. If the b. Division estimates that processing of the permit will take more than 30 hours, it will notify the permittee of its estimate of what the actual charges may be prior to commencing any work exceeding the 30 hour limit.
- The permittee shall pay an APEN fee in accordance with the provisions of C.R.S. § 25-7-114.1(6) for each APEN or C. revised APEN filed.

#### 9. **Fugitive Particulate Emissions**

#### Regulation No. 1, 5 CCR 1001-3, § III.D.1.

The permittee shall employ such control measures and operating procedures as are necessary to minimize fugitive particulate emissions into the atmosphere, in accordance with the provisions of Regulation No. 1, § III.D.1.

#### 10. **Inspection and Entry**

#### Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.16.b.

Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Air Pollution Control Division, or any authorized representative, to perform the following:

- enter upon the permittee's premises where an Operating Permit source is located, or emissions-related activity is a. conducted, or where records must be kept under the terms of the permit;
- have access to, and copy, at reasonable times, any records that must be kept under the conditions of the permit; b.
- inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), c. practices, or operations regulated or required under the Operating Permit;
- d. sample or monitor at reasonable times, for the purposes of assuring compliance with the Operating Permit or applicable requirements, any substances or parameters.

#### 11. **Minor Permit Modifications**

#### Regulation No. 3, 5 CCR 1001-5, Part C, §§ X. & XI.

The permittee shall submit an application for a minor permit modification before making the change requested in the application. The permit shield shall not extend to minor permit modifications.

#### 12. **New Source Review**

#### Regulation No. 3, 5 CCR 1001-5, Part B

The permittee shall not commence construction or modification of a source required to be reviewed under the New Source Review provisions of Regulation No. 3, Part B, without first receiving a construction permit.

#### 13. No Property Rights Conveyed

## Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.11.d.

This permit does not convey any property rights of any sort, or any exclusive privilege.

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#### 14. Odor

#### Regulation No. 2, 5 CCR 1001-4, Part A

As a matter of state law only, the permittee shall comply with the provisions of Regulation No. 2 concerning odorous emissions.

#### 15. **Off-Permit Changes to the Source**

#### Regulation No. 3, 5 CCR 1001-5, Part C, § XII.B.

The permittee shall record any off-permit change to the source that causes the emissions of a regulated pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from the change, including any other data necessary to show compliance with applicable ambient air quality standards. The permittee shall provide contemporaneous notification to the Air Pollution Control Division and to the Environmental Protection Agency at the addresses listed in Appendix D of this Permit. The permit shield shall not apply to any off-permit change.

#### **Opacity 16.**

#### Regulation No. 1, 5 CCR 1001-3, §§ I., II.

The permittee shall comply with the opacity emissions limitation set forth in Regulation No. 1, §§ I.- II.

#### 17. **Open Burning**

#### Regulation No. 9, 5 CCR 1001-11

The permittee shall obtain a permit from the Division for any regulated open burning activities in accordance with provisions of Regulation No. 9.

#### 18. **Ozone Depleting Compounds**

## Regulation No. 15, 5 CCR 1001-17

The permittee shall comply with the provisions of Regulation No. 15 concerning emissions of ozone depleting compounds. Sections I., II.C., II.D., III. IV., and V. of Regulation No. 15 shall be enforced as a matter of state law only.

#### 19. **Permit Expiration and Renewal**

# Regulation No. 3, 5 CCR 1001-5, Part C, §§ III.B.6., IV.C., V.C.2.

- The permit term shall be five (5) years. The permit shall expire at the end of its term. Permit expiration terminates a. the permittee's right to operate unless a timely and complete renewal application is submitted.
- b. Applications for renewal shall be submitted at least twelve months, but not more than 18 months, prior to the expiration of the Operating Permit. An application for permit renewal may address only those portions of the permit that require revision, supplementing, or deletion, incorporating the remaining permit terms by reference from the previous permit. A copy of any materials incorporated by reference must be included with the application.

#### **Portable Sources** 20.

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## Regulation No. 3, 5 CCR 1001-5, Part C, § II.D.

Portable Source permittees shall notify the Air Pollution Control Division at least 10 days in advance of each change in location.

## 21. Prompt Deviation Reporting

#### Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.7.b.

The permittee shall promptly report any deviation from permit requirements, including those attributable to malfunction conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken.

"Prompt" is defined as follows:

- a. Any definition of "prompt" or a specific timeframe for reporting deviations provided in an underlying applicable requirement as identified in this permit; or
- b. Where the underlying applicable requirement fails to address the time frame for reporting deviations, reports of deviations will be submitted based on the following schedule:
  - (i) For emissions of a hazardous air pollutant or a toxic air pollutant (as identified in the applicable regulation) that continue for more than an hour in excess of permit requirements, the report shall be made within 24 hours of the occurrence;
  - (ii) For emissions of any regulated air pollutant, excluding a hazardous air pollutant or a toxic air pollutant that continue for more than two hours in excess of permit requirements, the report shall be made within 48 hours; and
  - (iii) For all other deviations from permit requirements, the report shall be submitted every six (6) months, except as otherwise specified by the Division in the permit in accordance with paragraph 22.d. below.
- c. If any of the conditions in paragraphs b.i or b.ii above are met, the source shall notify the Division by telephone (303-692-3155) or facsimile (303-782-0278) based on the timetables listed above. [Explanatory note: Notification by telephone or facsimile must specify that this notification is a deviation report for an Operating Permit.] A written notice, certified consistent with General Condition 2.a. above (Certification Requirements), shall be submitted within 10 working days of the occurrence. All deviations reported under this section shall also be identified in the 6-month report required above.

"Prompt reporting" does not constitute an exception to the requirements of "Emergency Provisions" for the purpose of avoiding enforcement actions.

# 22. Record Keeping and Reporting Requirements

# Regulation No. 3, 5 CCR 1001-5, Part A, § II.; Part C, §§ V.C.6., V.C.7.

- a. Unless otherwise provided in the source specific conditions of this Operating Permit, the permittee shall maintain compliance monitoring records that include the following information:
  - (i) date, place as defined in the Operating Permit, and time of sampling or measurements;
  - (ii) date(s) on which analyses were performed;
  - (iii) the company or entity that performed the analysis;

- (iv) the analytical techniques or methods used;
- (v) the results of such analysis; and
- (vi) the operating conditions at the time of sampling or measurement.
- b. The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report or application. Support information, for this purpose, includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the Operating Permit. With prior approval of the Air Pollution Control Division, the permittee may maintain any of the above records in a computerized form.
- c. Permittees must retain records of all required monitoring data and support information for the most recent twelve (12) month period, as well as compliance certifications for the past five (5) years on-site at all times. A permittee shall make available for the Air Pollution Control Division's review all other records of required monitoring data and support information required to be retained by the permittee upon 48 hours advance notice by the Division.
- d. The permittee shall submit to the Air Pollution Control Division all reports of any required monitoring at least every six (6) months, unless an applicable requirement, the compliance assurance monitoring rule, or the Division requires submission on a more frequent basis. All instances of deviations from any permit requirements must be clearly identified in such reports.
- e. The permittee shall file an Air Pollutant Emissions Notice ("APEN") prior to constructing, modifying, or altering any facility, process, activity which constitutes a stationary source from which air pollutants are or are to be emitted, unless such source is exempt from the APEN filing requirements of Regulation No. 3, Part A, § II.D. A revised APEN shall be filed annually whenever a significant change in emissions, as defined in Regulation No. 3, Part A, § II.C.2., occurs; whenever there is a change in owner or operator of any facility, process, or activity; whenever new control equipment is installed; whenever a different type of control equipment replaces an existing type of control equipment; whenever a permit limitation must be modified; or before the APEN expires. An APEN is valid for a period of five years. The five-year period recommences when a revised APEN is received by the Air Pollution Control Division. Revised APENs shall be submitted no later than 30 days before the five-year term expires. Permittees submitting revised APENs to inform the Division of a change in actual emission rates must do so by April 30 of the following year. Where a permit revision is required, the revised APEN must be filed along with a request for permit revision. APENs for changes in control equipment must be submitted before the change occurs. Annual fees are based on the most recent APEN on file with the Division.

#### 23. Reopenings for Cause

## Regulation No. 3, 5 CCR 1001-5, Part C, § XIII.

- a. The Air Pollution Control Division shall reopen, revise, and reissue Operating Permits; permit reopenings and reissuance shall be processed using the procedures set forth in Regulation No. 3, Part C, § III., except that proceedings to reopen and reissue permits affect only those parts of the permit for which cause to reopen exists.
- b. The Division shall reopen a permit whenever additional applicable requirements become applicable to a major source with a remaining permit term of three or more years, unless the effective date of the requirements is later than the date on which the permit expires, or unless a general permit is obtained to address the new requirements; whenever additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program; whenever the Division determines the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or whenever the Division determines that the permit must be revised or revoked to assure compliance with an applicable requirement.
- c. The Division shall provide 30 days' advance notice to the permittee of its intent to reopen the permit, except that a shorter notice may be provided in the case of an emergency.

d. The permit shield shall extend to those parts of the permit that have been changed pursuant to the reopening and reissuance procedure.

#### **24.** Section 502(b)(10) Changes

#### Regulation No. 3, 5 CCR 1001-5, Part C, § XII.A.

The permittee shall provide a minimum 7-day advance notification to the Air Pollution Control Division and to the Environmental Protection Agency at the addresses listed in Appendix D of this Permit. The permittee shall attach a copy of each such notice given to its Operating Permit.

#### 25. Severability Clause

## Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.10.

In the event of a challenge to any portion of the permit, all emissions limits, specific and general conditions, monitoring, record keeping and reporting requirements of the permit, except those being challenged, remain valid and enforceable.

#### 26. Significant Permit Modifications

## Regulation No. 3, 5 CCR 1001-5, Part C, § III.B.2.

The permittee shall not make a significant modification required to be reviewed under Regulation No. 3, Part B ("Construction Permit" requirements) without first receiving a construction permit. The permittee shall submit a complete Operating Permit application or application for an Operating Permit revision for any new or modified source within twelve months of commencing operation, to the address listed in Item 1 in Appendix D of this permit. If the permittee chooses to use the "Combined Construction/Operating Permit" application procedures of Regulation No. 3, Part C, then the Operating Permit must be received prior to commencing construction of the new or modified source.

# 27. Special Provisions Concerning the Acid Rain Program

# Regulation No. 3, 5 CCR 1001-5, Part C, §§ V.C.1.b. & 8

- a. Where an applicable requirement of the federal act is more stringent than an applicable requirement of regulations promulgated under Title IV of the federal act, 40 Code of Federal Regulations (CFR) Part 72, both provisions shall be incorporated into the permit and shall be federally enforceable.
- b. Emissions exceeding any allowances that the source lawfully holds under Title IV of the federal act or the regulations promulgated thereunder, 40 CFR Part 72, are expressly prohibited.

#### 28. Transfer or Assignment of Ownership

#### Regulation No. 3, 5 CCR 1001-5, Part C, § II.C.

No transfer or assignment of ownership of the Operating Permit source will be effective unless the prospective owner or operator applies to the Air Pollution Control Division on Division-supplied Administrative Permit Amendment forms, for reissuance of the existing Operating Permit. No administrative permit shall be complete until a written agreement containing a specific date for transfer of permit, responsibility, coverage, and liability between the permittee and the prospective owner or operator has been submitted to the Division.

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#### 29. **Volatile Organic Compounds**

#### Regulation No. 7, 5 CCR 1001-9, §§ III & V.

For sources located in an ozone non-attainment area or the Denver Metro Attainment Maintenance Area, all storage tank gauging devices, anti-rotation devices, accesses, seals, hatches, roof drainage systems, support structures, and pressure relief valves shall be maintained and operated to prevent detectable vapor loss except when opened, actuated, or used for necessary and proper activities (e.g. maintenance). Such opening, actuation, or use shall be limited so as to minimize vapor loss.

Detectable vapor loss shall be determined visually, by touch, by presence of odor, or using a portable hydrocarbon analyzer. When an analyzer is used, detectable vapor loss means a VOC concentration exceeding 10,000 ppm. Testing shall be conducted as in Regulation No. 7, Section VIII.C.3.

Except when otherwise provided by Regulation No. 7, all volatile organic compounds, excluding petroleum liquids, transferred to any tank, container, or vehicle compartment with a capacity exceeding 212 liters (56 gallons), shall be transferred using submerged or bottom filling equipment. For top loading, the fill tube shall reach within six inches of the bottom of the tank compartment. For bottom-fill operations, the inlet shall be flush with the tank bottom.

- The permittee shall not dispose of volatile organic compounds by evaporation or spillage unless Reasonably b. Available Control Technology (RACT) is utilized.
- No owner or operator of a bulk gasoline terminal, bulk gasoline plant, or gasoline dispensing facility as defined in c. Colorado Regulation No. 7, Section VI, shall permit gasoline to be intentionally spilled, discarded in sewers, stored in open containers, or disposed of in any other manner that would result in evaporation.

#### 30. **Wood Stoves and Wood burning Appliances**

#### Regulation No. 4, 5 CCR 1001-6

The permittee shall comply with the provisions of Regulation No. 4 concerning the advertisement, sale, installation, and use of wood stoves and wood burning appliances.

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# OPERATING PERMIT APPENDICES

- A INSPECTION INFORMATION
- **B- MONITORING AND PERMIT DEVIATION REPORT**
- C COMPLIANCE CERTIFICATION REPORT
- D NOTIFICATION ADDRESSES
- E PERMIT ACRONYMS
- F PERMIT MODIFICATIONS
- G CONTINUOUS EMISSION MONITORING SYSTEM (CEMS) PLAN

# \*DISCLAIMER:

None of the information found in these Appendices shall be considered to be State or Federally enforceable, except as otherwise provided in the permit, and is presented to assist the source, permitting authority, inspectors, and citizens.

# **APPENDIX A - Inspection Information**

#### **Directions to Plant**

The facility is located at 48303 State Highway 71. The facility is located approximately seven kilometers south, southwest of the Limon, Co on the west side of State highway 71, just south of the Limon Correctional Facility.

# **Safety Equipment Required**

Eye Protection, Hard Hat, Safety Shoes and Hearing Protection

# **Facility Plot Plan**

Figure 1 (included at the end of Appendix A) shows the plot plan as submitted on July 9, 2001 with the source's Title V Operating Permit Application.

# **List of Insignificant Activities**

The following list of insignificant activities was provided by the source to assist in the understanding of the facility layout. Since there is no requirement to update such a list, activities may have changed since the last filing.

Insignificant activities and/or sources of emissions as identified in the Title V permit application:

Two (2) fuel heaters (natural gas fired), 3.5 mmBtu/hr each

Two (2) fuel gas heater tanks (water bath) – main 4,000 gal, each

Two (2) fuel gas heater tanks (water bath) – expansion 361 gal, each

Distillate fuel oil storage tank (1,500,000 gallons, above ground) previously identified in construction permit 02LI0450

Chemical storage tanks < 5,000 gal

Sulfuric acid – 2,000 gal

Sodium hydroxide – 450 gal

Sodium bisulfite – 22 gal

Lube oil tank - 3,300 gal

Transformers (480 volt/590 gal, 4160 volt/3200 gal, 13800 volt/12460 gal)

Wash water storage tank (underground) - 2,000 gal

Water Treatment (deareator/degassifier) – 1,250 gal

Treated water storage

Demineralized water – 250,000 gal

Potable water -250,000 gal

Two (2) Pressurized CO<sub>2</sub> tank for fire protection – 8,000 lbs each

Landscaping equipment < 10 hp

Ventilated Enclosures (height)

Distillate forwarding pumps (9 ft)

Generator Cooling (18 ft)

Load tunnel cooling (18 ft)

Exhaust wrapper cooling (18 ft)

Exhaust frame cooling (18 ft)

Gas distribution valving (8 ft)

Building Ventilation – including fuel burning equipment using natural gas < 10 mmBtu/hr and used solely for comfort heating

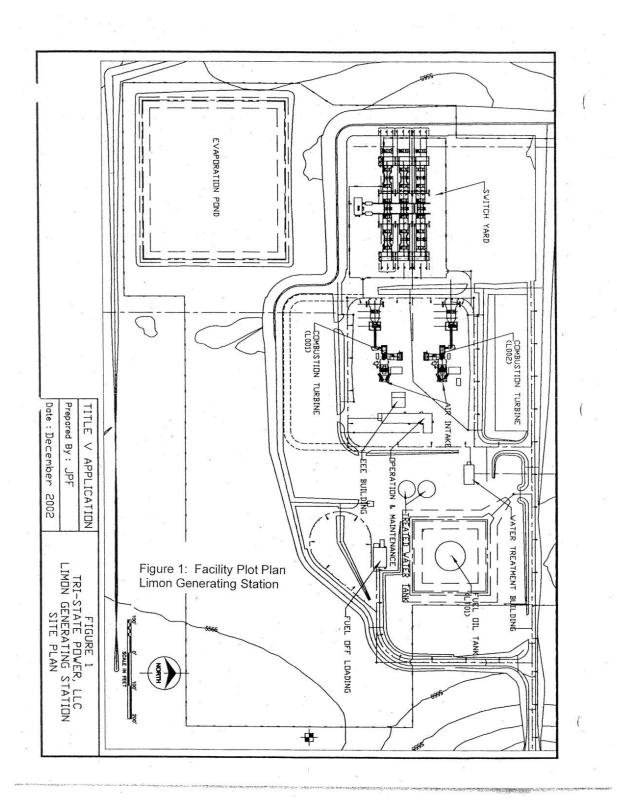
Water treatment building

EEE building – including battery charging station

Control room/maintenance shop – includes welding and other maintenance activities\

Distillate transfer station – includes equipment storage

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#### APPENDIX B

# **Reporting Requirements and Definitions**

with codes ver 2/20/2007

Please note that, pursuant to 113(c)(2) of the federal Clean Air Act, any person who knowingly:

- makes any false material statement, representation, or certification in, or omits material information (A) from, or knowingly alters, conceals, or fails to file or maintain any notice, application, record, report, plan, or other document required pursuant to the Act to be either filed or maintained (whether with respect to the requirements imposed by the Administrator or by a State);
- (B) fails to notify or report as required under the Act; or
- (C) falsifies, tampers with, renders inaccurate, or fails to install any monitoring device or method required to be maintained or followed under the Act shall, upon conviction, be punished by a fine pursuant to title 18 of the United States Code, or by imprisonment for not more than 2 years, or both. If a conviction of any person under this paragraph is for a violation committed after a first conviction of such person under this paragraph, the maximum punishment shall be doubled with respect to both the fine and imprisonment.

The permittee must comply with all conditions of this operating permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

The Part 70 Operating Permit program requires three types of reports to be filed for all permits. All required reports must be certified by a responsible official.

## **Report #1: Monitoring Deviation Report** (due at least every six months)

For purposes of this operating permit, the Division is requiring that the monitoring reports are due every six months unless otherwise noted in the permit. All instances of deviations from permit monitoring requirements must be clearly identified in such reports.

For purposes of this operating permit, monitoring means any condition determined by observation, by data from any monitoring protocol, or by any other monitoring which is required by the permit as well as the recordkeeping associated with that monitoring. This would include, for example, fuel use or process rate monitoring, fuel analyses, and operational or control device parameter monitoring.

## **Report #2: Permit Deviation Report (must be reported "promptly")**

In addition to the monitoring requirements set forth in the permits as discussed above, each and every requirement of the permit is subject to deviation reporting. The reports must address deviations from permit requirements, including those attributable to malfunctions as defined in this Appendix, the probable cause of

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such deviations, and any corrective actions or preventive measures taken. All deviations from any term or condition of the permit are required to be summarized or referenced in the annual compliance certification.

For purposes of this operating permit, "malfunction" shall refer to both emergency conditions and malfunctions. Additional discussion on these conditions is provided later in this Appendix.

For purposes of this operating permit, the Division is requiring that the permit deviation reports are due as set forth in General Condition 21. Where the underlying applicable requirement contains a definition of prompt or otherwise specifies a time frame for reporting deviations, that definition or time frame shall govern. For example, quarterly Excess Emission Reports required by an NSPS or Regulation No. 1, Section IV.

In addition to the monitoring deviations discussed above, included in the meaning of deviation for the purposes of this operating permit are any of the following:

- (1) A situation where emissions exceed an emission limitation or standard contained in the permit;
- A situation where process or control device parameter values demonstrate that an emission limitation or (2) standard contained in the permit has not been met;
- (3) A situation in which observations or data collected demonstrates noncompliance with an emission limitation or standard or any work practice or operating condition required by the permit; or,
- A situation in which an excursion or exceedance as defined in 40CFR Part 64 (the Compliance (4) Assurance Monitoring (CAM) Rule) has occurred. (only if the emission point is subject to CAM)

For reporting purposes, the Division has combined the Monitoring Deviation Report with the Permit Deviation Report. All deviations shall be reported using the following codes:

**1 = Standard:** When the requirement is an emission limit or standard When the requirement is a production/process limit 2 = Process:

When the requirement is monitoring 3 = Monitor: When the requirement is testing **4** = Test:

When required maintenance is not performed **5** = Maintenance: 6 = Record:When the requirement is recordkeeping

When the requirement is reporting 7 =Report:

A situation in which an excursion or exceedance as defined in 40CFR Part 64 (the 8 = CAM:

Compliance Assurance Monitoring (CAM) Rule) has occurred.

When the deviation is not covered by any of the above categories **9** = Other:

# **Report #3: Compliance Certification (annually, as defined in the permit)**

Submission of compliance certifications with terms and conditions in the permit, including emission limitations, standards, or work practices, is required not less than annually.

Compliance Certifications are intended to state the compliance status of each requirement of the permit over the certification period. They must be based, at a minimum, on the testing and monitoring methods specified in the

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permit that were conducted during the relevant time period. In addition, if the owner or operator knows of other material information (i.e. information beyond required monitoring that has been specifically assessed in relation to how the information potentially affects compliance status), that information must be identified and addressed in the compliance certification. The compliance certification must include the following:

- The identification of each term or condition of the permit that is the basis of the certification;
- Whether or not the method(s) used by the owner or operator for determining the compliance status with each permit term and condition during the certification period was the method(s) specified in the permit. Such methods and other means shall include, at a minimum, the methods and means required in the permit. If necessary, the owner or operator also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Federal Clean Air Act, which prohibits knowingly making a false certification or omitting material information;
- The status of compliance with the terms and conditions of the permit, and whether compliance was continuous or intermittent. The certification shall identify each deviation and take it into account in the compliance certification. Note that not all deviations are considered violations.
- Such other facts as the Division may require, consistent with the applicable requirements to which the source is subject, to determine the compliance status of the source.

The Certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 (the Compliance Assurance Monitoring (CAM) Rule) has occurred. (only for emission points subject to CAM)

Note the requirement that the certification shall identify each deviation and take it into account in the compliance certification. Previously submitted deviation reports, including the deviation report submitted at the time of the annual certification, may be referenced in the compliance certification.

For example, given the various emissions limitations and monitoring requirements to which a source may be subject, a deviation from one requirement may not be a deviation under another requirement which recognizes an exception and/or special circumstances relating to that same event.

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# Startup, Shutdown, Malfunctions and Emergencies

Understanding the application of Startup, Shutdown, Malfunctions and Emergency Provisions, is very important in both the deviation reports and the annual compliance certifications.

# Startup, Shutdown, and Malfunctions

Please note that exceedances of some New Source Performance Standards (NSPS) and Maximum Achievable Control Technology (MACT) standards that occur during Startup, Shutdown or Malfunctions may not be considered to be non-compliance since emission limits or standards often do not apply unless specifically stated in the NSPS. Such exceedances must, however, be reported as excess emissions per the NSPS/MACT rules and would still be noted in the deviation report. In regard to compliance certifications, the permittee should be confident of the information related to those deviations when making compliance determinations since they are subject to Division review. The concepts of Startup, Shutdown and Malfunctions also exist for Best Available Control Technology (BACT) sources, but are not applied in the same fashion as for NSPS and MACT sources.

# **Emergency Provisions**

Under the Emergency provisions of Part 70 certain operational conditions may act as an affirmative defense against enforcement action if they are properly reported.

## **DEFINITIONS**

**Malfunction** (NSPS) means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

**Malfunction** (SIP) means any sudden and unavoidable failure of air pollution control equipment or process equipment or unintended failure of a process to operate in a normal or usual manner. Failures that are primarily caused by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.

**Emergency** means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

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# **Monitoring and Permit Deviation Report - Part I**

Following is the **required** format for the Monitoring and Permit Deviation report to be submitted to the Division as set forth in General Condition 21. The Table below must be completed for all equipment or processes for which specific Operating Permit terms exist.

1. 2. Part II of this Appendix B shows the format and information the Division will require for describing periods of monitoring and permit deviations, or malfunction or emergency conditions as indicated in the Table below. One Part II Form must be completed for each Deviation. Previously submitted reports (e.g. EER's or malfunctions) may be referenced and the form need not be filled out in its entirety.

FACILITY NAME: Tri-State Generation at	nd Transmission Association, Inc. – Limon Generating Station
OPERATING PERMIT NO: 020PLI253	
REPORTING PERIOD:	(see first page of the permit for specific reporting period and dates)

		Devia Noted I Perio	During	Deviation Code <sup>2</sup>	Upset/En Condition During l	Reported
Operating	Hall Decod day	YES	NO		YES	NO
Permit Unit ID	Unit Description					
L001	One (1) General Electric Combustion Turbine, Model No. 7EA (PG7121), Serial No. 297656. Natural Gas is the Primary Fuel, with Distillate Fuel Oil Used as Backup. The Turbine is Rated at 840.3 mmBtu/hr (Natural Gas) and 905.8 mmBtu/hr (Distillate Fuel). This Turbine drives a Generator Rated at 82 MW.					
L002	One (1) General Electric Combustion Turbine, Model No. 7EA (PG7121), Serial No. 297657. Natural Gas is the Primary Fuel, with Distillate Fuel Oil Used as Backup. The Turbine is Rated at 840.3 mmBtu/hr (Natural Gas) and 905.8 mmBtu/hr (Distillate Fuel). This Turbine drives a Generator Rated at 82 MW.					
	General Conditions					
	Insignificant Activities					

<sup>&</sup>lt;sup>1</sup> See previous discussion regarding what is considered to be a deviation. Determination of whether or not a deviation has occurred shall be based on a reasonable inquiry using readily available information.

1 = Standard: When the requirement is an emission limit or standard 2 = Process:When the requirement is a production/process limit

3 = Monitor: When the requirement is monitoring 4 = Test: When the requirement is testing

**5** = Maintenance: When required maintenance is not performed

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<sup>&</sup>lt;sup>2</sup> Use the following entries, as appropriate:

6 = Record: When the requirement is recordkeeping **7 = Report:** When the requirement is reporting

8 = CAM: A situation in which an excursion or exceedance as defined in 40CFR Part 64 (the Compliance Assurance

Monitoring (CAM) Rule) has occurred.

**9** = **Other**: When the deviation is not covered by any of the above categories

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# **Monitoring and Permit Deviation Report - Part II** Tri-State Generation and Transmission Association, Inc. – Limon Generating FACILITY NAME: Station OPERATING PERMIT NO: 020PLI253 **REPORTING PERIOD:** Is the deviation being claimed as an: Emergency \_\_\_\_\_ Malfunction \_\_\_\_\_ N/A \_\_\_\_\_ (For NSPS/MACT) Did the deviation occur during: Startup \_\_\_\_\_ Shutdown \_\_\_\_\_ Malfunction \_\_\_\_\_ Normal Operation \_\_\_\_\_\_ OPERATING PERMIT UNIT IDENTIFICATION: **Operating Permit Condition Number Citation** Explanation of Period of Deviation Duration (start/stop date & time) Action Taken to Correct the Problem Measures Taken to Prevent a Reoccurrence of the Problem Dates of Upsets/Emergencies Reported (if applicable) Division Code QA Deviation Code \_\_\_\_\_ SEE EXAMPLE ON THE NEXT PAGE

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# **EXAMPLE**

FACILITY NAME: Acme Corp.  OPERATING PERMIT NO: 96OPZZXXX  REPORTING PERIOD: 1/1/96 - 6/30/96				
Is the deviation being claimed as an:	Emergency	Malfunction	XX	N/A
(For NSPS/MACT) Did the deviation occur during:		Shutdown	Malfunction	1
OPERATING PERMIT UNIT IDENTIFICATION:	:			
Asphalt Plant with a Scrubber for Particulate Control	ol - Unit XXX			
Operating Permit Condition Number Citation				
Section II, Condition 3.1 - Opacity Limitation				
Explanation of Period of Deviation				
Slurry Line Feed Plugged				
<u>Duration</u>				
START- 1730 4/10/96 END- 1800 4/10/96				
Action Taken to Correct the Problem				
Line Blown Out				
Measures Taken to Prevent Reoccurrence of the Pro	<u>oblem</u>			
Replaced Line Filter				
Dates of Upsets/Emergencies Reported (if applicable	<u>le)</u>			
4/10/96 to M. Jackson, APCD				
Deviation Code		Division Code QA		_

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# **Monitoring and Permit Deviation Report - Part III**

# REPORT CERTIFICATION

SOURCE NAME: Tri-State Generation FACILITY IDENTIFICATION NUMB		ion, Inc. – Limon Generating Station	
PERMIT NUMBER: 02OPLI253			
REPORTING PERIOD:	(see first page of the pe	ermit for specific reporting period and date	es)
All information for the Title V Semi-Andefined in Colorado Regulation No. 3, F packaged with the documents being sub	Part A, Section I.B.38. This	st be certified by a responsible official as signed certification document must be	
STATEMENT OF COMPLETENESS	S		
I have reviewed the information being formed after reasonable inquiry, I cerare true, accurate and complete.	-	and, based on information and belief nd information contained in this submit	tal
1-501(6), C.R.S., makes any false ma	terial statement, represent	o knowingly, as defined in Sub-Section tation, or certification in this document with the provisions of Sub-Section 2.	t is
Printed or Typed Name		Title	
Signature of Responsible Officia	al	Date Signed	
Note: Deviation reports shall be sub permit. No copies need be sent to the		the address given in Appendix D of t	hi

# **APPENDIX C**

# **Required Format for Annual Compliance Certification Report**

Following is the format for the Compliance Certification report to be submitted to the Division and the U.S. **EPA** annually based on the effective date of the permit. The Table below must be completed for all equipment or processes for which specific Operating Permit terms exist.

FACILITY NAME:	Tri-State Generation and Transmission Association, Inc. – Limon Generating Station
OPERATING PERMIT NO: REPORTING PERIOD:	
I. Facility Status	
in the Permit, each term and o	ng period, this source was in compliance with <b>ALL</b> terms and conditions contained condition of which is identified and included by this reference. The method(s) e is/are the method(s) specified in the Permit.
with all terms and condition included by this reference, deach term and condition is the	tion of the deviations identified in the table below, this source was in compliance as contained in the Permit, each term and condition of which is identified and turing the entire reporting period. The method used to determine compliance for the method specified in the Permit, unless otherwise indicated and described in the total deviations are considered violations.

Operating Permit Unit ID	Unit Description	Devia Repoi		Metho	Monitoring Method per Permit? <sup>2</sup> Was compliance continuou intermittent? <sup>3</sup>		ce continuous or nittent? <sup>3</sup>
		Previous	Current	YES	NO	Continuous	Intermittent
L001	One (1) General Electric Combustion Turbine, Model No. 7EA (PG7121), Serial No. 297656.						
L002	One (1) General Electric Combustion Turbine, Model No. 7EA (PG7121), Serial No. 297657.						
General Conditions							
Insignificant Activities <sup>4</sup>							

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#### NOTE:

The Periodic Monitoring requirements of the Operating Permit program rule are intended to provide assurance that even in the absence of a continuous system of monitoring the Title V source can demonstrate whether it has operated in continuous compliance for the duration of the reporting period. Therefore, if a source 1) conducts all of the monitoring and recordkeeping required in its permit, even if such activities are done periodically and not continuously, and if 2) such monitoring and recordkeeping does not indicate non-compliance, and if 3) the Responsible Official is not aware of any credible evidence that indicates non-compliance, then the Responsible Official can certify that the emission point(s) in question were in continuous compliance during the applicable time period.

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<sup>&</sup>lt;sup>1</sup> If deviations were noted in a previous deviation report, put an "X" under "previous". If deviations were noted in the current deviation report (i.e. for the last six months of the annual reporting period), put an "X" under "current". Mark both columns if both apply.

<sup>&</sup>lt;sup>2</sup> Note whether the method(s) used to determine the compliance status with each term and condition was the method(s) specified in the permit. If it was not, mark "no" and attach additional information/explanation.

<sup>&</sup>lt;sup>3</sup> Note whether the compliance status with of each term and condition provided was continuous or intermittent. "Intermittent Compliance" can mean either that noncompliance has occurred or that the owner or operator has data sufficient to certify compliance only on an intermittent basis. Certification of intermittent compliance therefore does not necessarily mean that any noncompliance has occurred.

<sup>&</sup>lt;sup>4</sup> Compliance status for these sources shall be based on a reasonable inquiry using readily available information.

II.	Status for Accidental Release Prevention Program:				
			facility is subject is not subject to the pention Program (Section 112(r) of the Federal Clean Air		
	B. If subject: The facility is is not in compliance with all the requirer section 112(r).				
		1.	A Risk Management Plan will be had authority and/or the designated central location by the		
III.	I. Certification				
reason accur Pleaso C.R.S	nable in ate and e note t ., make	nquiry l comp that the es any	his certification in its entirety and, based on information, I certify that the statements and information contallete.  e Colorado Statutes state that any person who know false material statement, representation, or certification and be punished in accordance with the provisions of	ined in this certification are true, ingly, as defined in § 18-1-501(6), tion in this document is guilty of a	
		Printe	ed or Typed Name	Title	
		,	Signature	Date Signed	

NOTE: All compliance certifications shall be submitted to the Air Pollution Control Division and to the

Environmental Protection Agency at the addresses listed in Appendix D of this Permit.

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# APPENDIX D

## **Notification Addresses**

#### **Air Pollution Control Division** 1.

Colorado Department of Public Health and Environment Air Pollution Control Division **Operating Permits Unit** APCD-SS-B1 4300 Cherry Creek Drive S. Denver, CO 80246-1530

ATTN: Jim King

#### 2. **United States Environmental Protection Agency**

# Compliance Notifications:

Office of Enforcement, Compliance and Environmental Justice Mail Code 8ENF-T U.S. Environmental Protection Agency, Region VIII 1595 Wynkoop Street Denver, CO 80202-1129

# Permit Modifications, Off Permit Changes:

Office of Partnerships and Regulatory Assistance Air and Radiation Programs, 8P-AR U.S. Environmental Protection Agency, Region VIII 1595 Wynkoop Street Denver, CO 80202-1129

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# **APPENDIX E**

# **Permit Acronyms**

# Listed Alphabetically:

P -

PE -

NESHAP -NSPS -

AIRS -	Aerometric Information Retrieval System
AP-42-	EPA Document Compiling Air Pollutant Emission Factors
APEN -	Air Pollution Emission Notice (State of Colorado)
APCD -	Air Pollution Control Division (State of Colorado)
ASTM -	American Society for Testing and Materials
BACT -	Best Available Control Technology
BTU -	British Thermal Unit
CAA -	Clean Air Act (CAAA = Clean Air Act Amendments)
CCR -	Colorado Code of Regulations
CEM -	Continuous Emissions Monitor
CF -	Cubic Feet (SCF = Standard Cubic Feet)
CFR -	Code of Federal Regulations
CO -	Carbon Monoxide
COM -	Continuous Opacity Monitor
CRS -	Colorado Revised Statute
EF -	Emission Factor
EPA -	Environmental Protection Agency
FI -	Fuel Input Rate in Lbs/mmBtu
FR -	Federal Register
G -	Grams
Gal -	Gallon
GPM -	Gallons per Minute
HAPs -	Hazardous Air Pollutants
HP -	Horsepower
HP-HR -	Horsepower Hour (G/HP-HR = Grams per Horsepower Hour)
LAER -	Lowest Achievable Emission Rate
LBS -	Pounds
M -	Thousand
MM -	Million
MMscf -	Million Standard Cubic Feet
MMscfd -	Million Standard Cubic Feet per Day
N -	Normal Operation, as referenced in permit limitation table in Section II.1
N/A or NA -	Not Applicable
NO <sub>X</sub> -	Nitrogen Oxides
NICCITAD	NECES TO A DESCRIPTION OF THE PROPERTY OF THE

Particulate Matter PM -Operating Permit Number: 02OPLI253 First Issued: April 1, 2004

New Source Performance Standards Process Weight Rate in Tons/Hr

Particulate Emissions

National Emission Standards for Hazardous Air Pollutants

 $PM_{10}$  -Particulate Matter Under 10 Microns

PPM -Parts Per Million

Parts Per Million, by Volume PPMV -Parts per Million, by Volume, Dry PPMVD -PSD -Prevention of Significant Deterioration

PTE -Potential To Emit

RACT -Reasonably Available Control Technology

Source Classification Code SCC -

SCF -Standard Cubic Feet

Shutdown, as referenced in permit limitation table in Section II.1 SD -

SIC -Standard Industrial Classification

 $SO_2$  -Sulfur Dioxide

Start-Up, as referenced in permit limitation table in Section II.1 SU -

TPY-Tons Per Year

TSP-Total Suspended Particulate VOC-Volatile Organic Compounds

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# **APPENDIX F**

# **Permit Modifications**

DATE OF REVISION	MODIFICATION TYPE	SECTION NUMBER, CONDITION NUMBER	DESCRIPTION OF REVISION

First Issued: April 1, 2004 Renewed: June 1, 2010 Operating Permit Number: 02OPLI253

#### APPENDIX G

# **Continuous Emission Monitoring System (CEMS) Plan**

In a letter dated July 15, 2002, the Division approved Tri-State's continuous emission monitoring system (CEMS) plan, dated December 7, 2001. The provisions in this plan have been incorporated into Section II of the operating permit except for the following provisions:

# CO Analyzer Range (Section 4.2)

Tri-State will install dual range analyzers such that higher values expected during the period of start-up/shutdown will not exceed the range of the analyzers. This will avoid having to substitute values for periods when the analyzer range is exceeded.

# Long Term Limits (Section 5.0.2)

All ppm data shall be reduced to clock hourly averages and converted to a lbs/hr value, regardless of whether the data represents a "full" clock hour of operation. Therefore, when monitoring compliance with the long-term emission limits, credit shall be given for the "partial" clock hour.

For instance, if a unit only operates for 20 minutes in a clock hour, the CEMS data for those 20 minutes shall be used to calculate a hourly average concentration, which will be compared to the appropriate concentration limit (i.e. startup, shutdown or standard operation). The hourly average concentration will then be converted to an average mass emission rate (lbs/hr). However, only 1/3 of the average hourly mass emission rate needs to be aggregated towards the annual emission limit, since the unit only ran for 1/3 of an hour.

## Significant Figures (Section 5.2)

The data acquisition and handling system (DAHS) will generate data, for compliance purposes, which will contain the same significant figures as the emission limits contained in this permit for the Limon facility. This will be true for both the short-term BACT emission limits and the long-term (annual) emission limits.

# Fuel Heating Value (Section 5.4)

The continuous monitoring systems (CEMS) use Section 12.2 of 40 CFR Part 60, Appendix A-7, Method 19 along with the fuel flow rate and the heating value of the fuel to determine the mass emission rates (tons/yr). Therefore Tri-State, using the procedures in 40 CFR Part 75 Appendix D, will obtain a heating value and this value will be incorporated into the DAHS as soon as practicable after obtaining the results. The frequency of sampling the heating value of natural gas and fuel oil will be as established in Sections 2.3(b) and 2.2.4.2 or 2.2.4.3 of 40 CFR Part 75 Appendix D. The higher heating value, represented by the gross calorific value of the fuel, will be used.

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